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**REVISED DOCUMENT CONTROL SYSTEM
USERS MANUAL
PROGRAMMERS MANUAL**

TECHNICAL REPORT 12-80

**UNITED STATES ARMY
COMBINED ARMS CENTER**

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Combined Arms Studies and Analysis Activity
US Army Combined Arms Combat Developments Activity
Fort Leavenworth, Kansas 66027

8
REVISED DOCUMENT CONTROL SYSTEM
USER'S MANUAL
PROGRAMMER'S MANUAL

9 Technical Report

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ABSTRACT

The Document Control System (DCS) described in this report was developed to provide the Combined Arms Studies and Analysis Activity with an automated system for controlling, maintaining, and locating the various documents located within the Activity. The system was originally designed for the TEKTRONIX 4051, but the ever increasing number of documents soon became over-burdening resulting in excessive retrieval time. The present system represents a conversion to the CDC 6500 utilizing the existing data management system, System 2000. This report contains a general description of the system's structure and capabilities, a user's manual, a programmer's manual, and a glossary of keywords.

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CHAPTER 1

INTRODUCTION

1-1. **PURPOSE.** The purpose of the Document Control System (DCS) is to provide Combined Arms Studies and Analysis Activity (CASAA) with an automated storage and retrieval system for controlling and rapidly locating the various classified and unclassified documents located within the activity.

1-2. **BACKGROUND.**

a. The Automated Document Control System utilizing the TEKTRONIX 4051 with flexible disks as the storage medium, though effective and a considerable improvement over its forerunner, had some relatively serious shortcomings. Foremost of these, due to the ever increasing number of documents, was poor retrieval time. Secondly, accessibility/prioritization and convenience were problems of note, the former due to limited hardware and the latter due to the location of that hardware in a classified area.

b. The negation of the preceding shortcomings, along with cost minimization, became the objective of the present system. The far superior capabilities of the CDC 6500 supplemented by the existing data management system software package (System 2000) seemed the approach to meet the objective requirements. Such a conversion would mean considerable retrieval time reduction, multiple access capability, and be as convenient as the nearest terminal capable of interfacing with the CDC 6500.

c. An additional objective was to provide the individual analyst with document search capabilities independent of the Data Management Branch without threat of accidental damage to the data base. Since interfacing with System 2000 would require knowledge of several system language commands, and could threaten the desired security, additional programming was required. A program was written to prompt the user for information regarding a document search. Another was written to link the prompting program with System 2000. Still others were written to (1) facilitate input via a prompting program, (2) provide update capabilities, and (3) produce pertinent hardcopy reports.

1-3. **OVERVIEW.**

a. Figure 1 presents a general schematic of the Document Control System. This figure will be used to describe in further detail how the system was designed to operate. Each of the blocks will be explained in logical order according to the necessary processing.

(1) Block number 1 represents a document coming to the Document Custodian. It may be a new document, a document to be destroyed, or one that is being transferred from one branch to another. In any case, for the system to function properly, it is absolutely essential that the document go to the Document Custodian for processing.

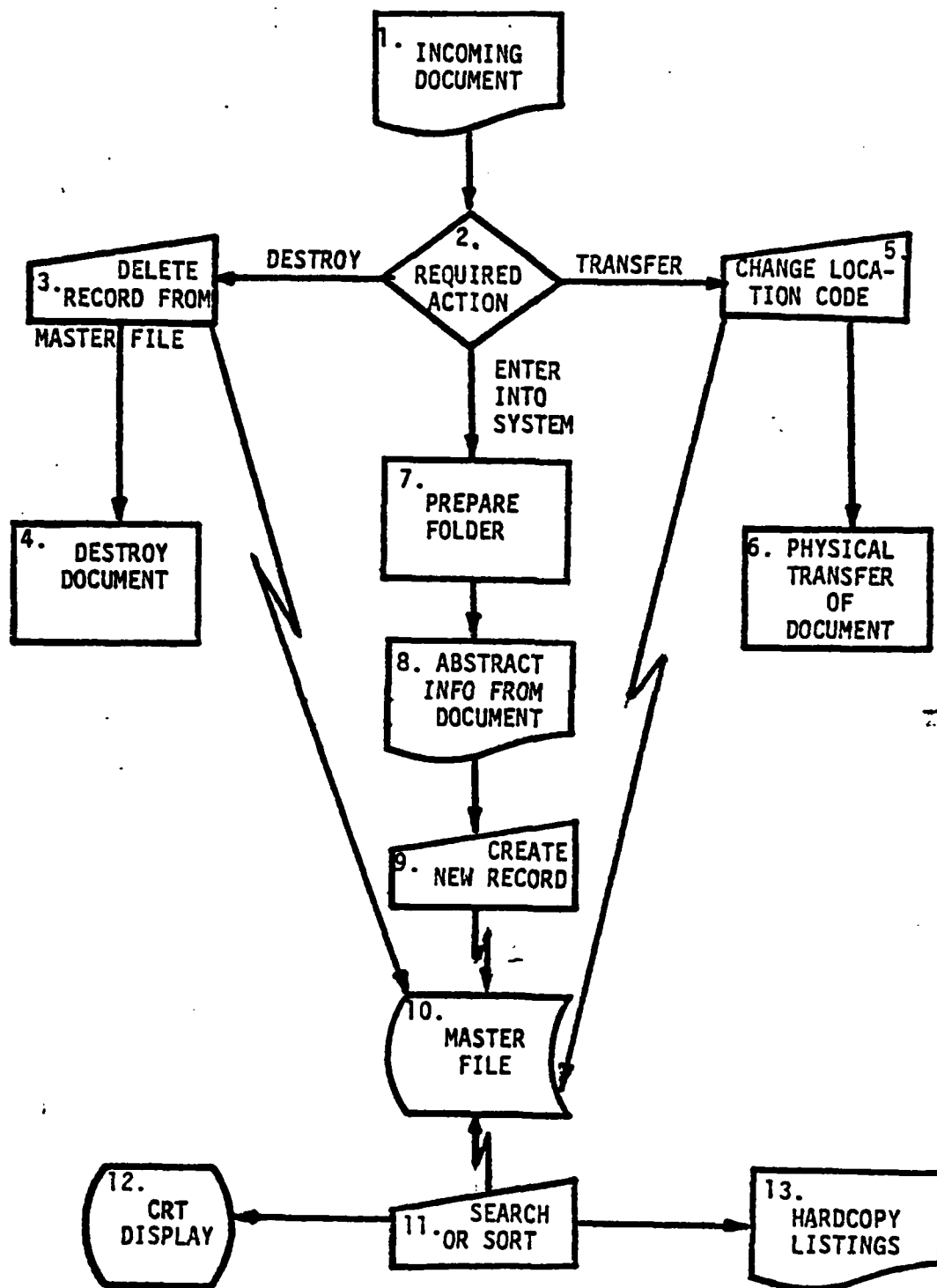


Figure 1. General schematic of the Document Control System

(2) In block 2 the Document Custodian must decide on the required action. Assume that the document is outdated or irrelevant and should be destroyed. In that case the next step is block 3.

(3) The document record must first be deleted from the master file, which contains the records of all the documents in the system. This step can be accomplished with a subprogram described later.

(4) The document must then be destroyed (block 4). If classified, it will be shredded by the Document Custodian.

(5) Assume, however, that the document is only being transferred between branches. (In this case it is imperative that the document go to the Document Custodian first. If this is not done, the system will not function.) The computer terminal will be used to change the location code for that document in the data base (block 5).

(6) The Document Custodian will then physically transfer the document (block 6).

(7) If the incoming document is a new document, it will be necessary to enter it into the system. The Document Custodian will prepare a manila folder in which to place the document (block 7). This folder will accompany the document for the entire time that it remains active within the activity. If the document is transferred between branches, the folder must accompany it.

(8) Certain information is extracted from the document and written down on work sheets. This information will be used to create a new record to be placed in the data base (blocks 8 and 9). A discussion of the information that is entered into the data base is presented in paragraph 1-4.

(9) The work sheet is then used to enter the document information into the data base via the computer terminal (block 10).

(10) The document records comprising the data base are stored on disks. The programs for updating and using the data base are also stored on CDC.

(11) The DCS search program can be used to search through the master file for specific key words, authors, subject areas, etc. (block 11), and the results of the search can be either displayed on the CRT screen (block 12), which is integral to the keyboard, or the documents may be printed out in hardcopy form using a line printer (block 13).

1-4. DOCUMENT COMPONENTS.

a. The present Document Control System contains 12 types of data regarding each document. The following is a summary of the data base definition by component with format specifications. (The actual data base definition resides, as created, in System 2000 and is shown in figure 2.)

SYSTEM RELEASE NUMBER 2.60F
 DATA BASE NAME IS DMLIB
 DEFINITION NUMBER 4
 DATA BASE CYCLE 238
 1* DOCUMENT NUMBER- (INTEGER NUMBER 0099)
 2* TITLE--- (NAME X(40))
 3* AUTHOR-- (NAME X(12))
 4* PRESENT LOCATION (NAME X(12))
 5* YEAR PUBLISHED-- (INTEGER NUMBER 99)
 6* CLASSIFICATION-- (NAME X)
 7* DOWNGRADE DATE-- (NAME XX)
 8* DATE OF ENTRY--- (NAME X(7))
 9* FUNCTIONAL AREA CODE (INTEGER NUMBER 99)
 10* INITIALIZING AGENCY- (NAME X(8))
 20* KEY (99)
 21* KEYWORD (NAME X(19) IN 20 WITH MANY FUTURE ADDITIONS)
 30* ABST (RG IN 20)
 31* ABSTRACT (NON-KEY NAME X(80) IN 30)

Figure 2. Component listing as defined in System 2000

<u>Component</u>	<u>Format</u>
Document Number	1-4 digits
Title	1-72 ch.
Author	1-30 ch.
Location	1-30 ch.
Year of Publication	2 digits
Classification	1 ch.
Downgrade Date	2 ch.
Date Entered	7 ch.
Functional Area Code	2 digits
Initializing Agency	1-20 ch.
Keyboards	1-20 ch. each
Abstract	unlimited

b. A more detailed description of each component follows:

- (1) Document number - four-digit number uniquely identifying the document.
- (2) Title - first 72 characters of the document title.
- (3) Author - author's surname only; if more than one author, the surname of the first author listed.
- (4) Location - identification number of the safe where the document can be found.
- (5) Year of publication - last two digits of the year of publication.
- (6) Classification - one character security code as follows:
 - S = Secret
 - C = Confidential
 - F = For Official Use Only
 - U = Unclassified
- (7) Downgrade date - two-character code representing the last two digits of the downgrade year, if applicable, or . . if not.
- (8) Date entered - three-letter month abbreviation followed by the last two digits of the year entered. Example: Aug 80.
- (9) Functional area code - two digits which serve as a subject matter code broken down as follows:

01. Fixed Wing Aircraft
02. Sensors
03. Tanks
04. Engineer
05. Artillery
06. Tracked Utility Carrier
07. Tracked Command Post

08. Antiarmor Weapons
09. Tracked Personnel Carriers
10. Communications
11. Ordnance (Conv and Nuclear)
12. Supply
13. Air Defense Artillery
14. Rotary Wing Aircraft
15. Electronic Warfare
16. Individual/Crew Served Weapons
17. Chemical
18. Medical
19. Maintenance
20. Transportation
21. Command and Control
22. Air-to-Ground Missiles
23. Miscellaneous
24. Scenarios
25. FMs and TMs
26. Messages and Correspondence

(10) Initializing agency - acronym representing the dispersing agency.

(11) Keyword(s) - word(s) considered most indicative of the document contents.

(12) Abstract - summary of the document contents.

An example of a typical document printout (full search) is shown in figure 3.

1-5. DOCUMENT REPORTS.

a. System 2000 command strings (subprograms) have been written to produce several periodically required reports. A description of each is presented below:

(1) Downgrade Report. At the beginning of each calendar year downgrading of certain documents is required. A subprogram has been designed to search through the data base, extract those documents due for downgrading, and produce a computer listing of same.

(2) Monthly Acquisition Report. This list provides a summary of the documents that have been received and entered into the system during any particular month. It is used to inform activity personnel of new documents that may be useful in their study efforts.

(3) Functional Area Report. To assist CASAA personnel in their literature search, this printout will list all documents in CASAA related to a specific functional area such as artillery, tanks, etc. Those document records that correspond to a selected two-digit functional area code are extracted from the document data base and printed out. A complete dump of the record contents is made, including the abstract.

FUL-COC-SPOCH(1725)%
 DOCUMENT NUMBER--* 1725
 TITLE---* FM 17-1: ARMOR OPERATIONS
 AUTHOR---* HQDA
 PRESENT LOCATION* LIP
 YEAR PUBLISHED--* 66
 CLASSIFICATION---* U
 DOWNGRADE DATE---* ..
 DATE OF ENTRY---* JUNE 80
 FUNCTIONAL AREA CODE* 25
 INITIALIZING AGENCY--* HQDA
 ABSTRACT* THIS MANUAL IS A GUIDE FOR ARMOR COMMANDERS AND STAFFS IN
 THE EMPLOYMENT COMMAND AND CONTROL OF ARMOR UNITS
 KEYWORD* FM 17-1
 KEYWORD* ARMOR
 KEYWORD* COMMAND AND CONTROL

Figure 3. Sample of a full document search

(4) Inventory (Location) Report. Periodically a printout will be produced for each branch head listing the documents that should be in his branch. A physical check can then be made and any discrepancies corrected.

b. Through System 2000 language commands countless other reports are possible. Instead of hardcopy printouts, it is also possible to view report findings on a CRT.

CHAPTER 2

DCS CAPABILITIES

2-1. PURPOSE. The purpose of this chapter is to specifically detail some of the present system capabilities. Chapter 3 will provide guidance for their exploitation.

2-2. GENERAL. For the Document Control System to serve its purpose, there are five basic capabilities it must possess:

- o Flexibility
- o New Document Entry
- o Document Update
- o Report Generating
- o Document Search

Of the above, the first three are reserved for Data Management Branch personnel. The following sections provide a brief description of each capability. All will receive further elaboration in chapter 3.

2-3. FLEXIBILITY. System 2000 provides the user with a great deal of flexibility in handling data. Programs and subprograms have been written to meet the more frequently occurring needs such as document searches, updating manipulation, and report production. However, direct interaction with System 2000 via the system language can greatly expand each of these capabilities. For example, it might be necessary to--

a. Locate all documents written by Doe (author) regarding tanks (keyword) or armored vehicles (keyword).

b. Locate all secret (classification) documents concerning smoke (keyword) published this year (year of publication).

c. Generate a report of document titles, authors, and location only in alphabetical order by title.

The options are practically only limited by the imagination of the user. Subprograms can easily be created and incorporated into the present system to provide the additional desired capabilities. Data Management personnel have sufficient training to discuss and assist in the creation of the software necessary to provide these capabilities.

2-4. NEW DOCUMENT ENTRY. The number of documents maintained in the DCS is constantly fluctuating. New documents arrive daily and must be evaluated and appropriately processed. To prevent accidental damage to the data base, this capability is reserved for Data Management personnel. As with the search process, a prompting program has been written to simplify the input procedure.

2-5. DOCUMENT UPDATE. There are several updating capabilities required to insure retrieval of the most recent document data available. The DCS custodian must be able to (1) add new data concerning an existing document to the system; (2) delete data pertaining to a document from the system; and (3) change data such as location or downgrade date as required periodically. Subprograms have been created to provide the DCS custodian with these updating capabilities.

2-6. REPORT GENERATING. As discussed in chapter 1, hardcopy printouts are periodically required for various purposes. The four most common of them include (1) Downgrading Report (annually); (2) Monthly Acquisition Report; (3) Functional Area Report; and (4) Inventory (Location) Report. Subprograms have been created to produce all four reports and options are available to provide the user with CRT display or hardcopy printout capabilities. (See also paragraph 2-3.)

2-7. DOCUMENT SEARCH. Obviously the prime function of the Document Control System is document management. An integral part of this management is the ability to retrieve pertinent information (especially location) by "searching for" a document via some key component. The document search program provides this capability for nearly any component and simplifies the procedure by prompting the user for the appropriate responses. For example, a user may perform an "author search" for all documents written by a specific author. Other searches possible using the search program include searching for a document or documents having a specific title, document number, keyword(s), initializing agency, location, or functional area code. To facilitate this search procedure, a prompting program has been created. The user responses are written to output specially formatted for System 2000. Hence, the user is capable of interfacing System 2000 and the DCS data base with virtually no system language knowledge. (See also paragraph 2-3.)

CHAPTER 3

USE OF THE SYSTEM

3-1. **PURPOSE.** It is assumed that the user is familiar with basic terminal procedures. This chapter represents the user's manual portion of the text. Illustrated in the following sections will be the techniques for utilizing the Document Control System capabilities described in the previous chapter.

3-2. **LOGIN PROCEDURE.** A specific login procedure is required to assure the legitimacy of the user. The machine prompts are shown in caps and the user responses in small letters. The x's represent values uniquely assigned to each legal user. The yy represents the two-character terminal identification number normally associated with that terminal.

MFA PLEASE LOGIN login

ENTER USER NAME - xxxx

xxxxxx IIII ENTER PASSWORD

ENTER TASK NAME - xxxxxxx

ENTER ACN OR CLASS OR SPACE - (hit space bar)

ENTER TERMINAL NUMBER - yy

3-3. **DOCUMENT SEARCH PROGRAM.** This is the most important phase of the Document Control System and certainly the most relevant to the individual analyst/user.

a. Utilization. To utilize the document search program, the user need issue only three commands as follows:

COMMAND - screen, 80

COMMAND - attach, dcs, id=testpa, mr=1

COMMAND - begin, search, dcs

b. The Program.

(1) The search begins by displaying the "search menu" shown in figure 4. The user is prompted to supply the number preceding the menu item about which information is known. The smallest number, as prompted, is not necessary, but is more restrictive and consequently may limit data selection more precisely to your need. For example, if document number 100 was written by Doe, a search for that particular document number (item number 1 on the menu) would produce information concerning that one specific document whereas a search for author Doe (item number 3 on the menu) might produce several documents including the one of interest.

(2) A definition of a "full" and "condensed" search follows the user's menu item response (see figure 5) and prompts the user to specify the type in

SEARCH MENU

1. DOCUMENT NUMBER.
2. DOCUMENT TITLE.
3. AUTHOR.
4. KEYWORD(S).
5. INITIALIZING AGENCY.
6. PRESENT LOCATION OF THE DOCUMENT.
7. 2 DIGIT FUNCTIONAL AREA CODE.

TYPE THE SMALLEST NUMBER FROM THE ABOVE MENU CORRESPONDING TO KNOWN INFORMATIC CONCERNING THE DOCUMENT.

Figure 4. Search menu from DCSREAD

A "FULL SEARCH" INCLUDES DOCUMENT #, TITLE, AUTHOR, LOCATION, YR. PUBLISHED, CLASSIFICATION, DOWNGRADING DATE, ENTRY DATE, FUNCTIONAL AREA CODE, INITIALIZING AGENCY, ABSTRACT AND KEYWORDS.

A "CONDENSED SEARCH" WILL INCLUDE ONLY THAT INFORMATION CONSIDERED MOST SIGNIFICANT.

IF YOU ARE INTERESTED IN A CONDENSED SEARCH TYPE C, FOR A FULL SEARCH TYPE F.

Figure 5. "Full" and "condensed" search definitions

which he is interested. (These definitions appear only in the first search, i.e., the first time through the program.) A "full search" will provide a listing of all data available while a "condensed search" will generally provide only those items necessary to locate and identify the document such as title, location, functional area code, and document number.

(3) The next prompt is unique depending on which search category the user has selected. A listing of these can be seen in figure 6. User response to most of the prompts is obvious but a few contain terminology which may require elaboration. The following is a brief discussion of those.

(a) Title. The 72* which appears after the title prompt is an indicator aid for the user. The * appears in column 72.

(b) Author. The example is correct for multiple authors. List only one author's name.

(c) Keyword(s). The user may search for up to three keywords at a time. A "conjunctural search" for key1 and key2 would produce information on all documents with both of those keywords. A "disjunctural search" then obviously refers to all documents containing either key1 or key2. Examples of a "conjunctural" and a "disjunctural" search along with the resulting output can be seen in figure 8. (Note the conjunctural search response was negative.)

(4) Next the program queries the user as to another search. The number of searches is unlimited but machine response is detained until completion of the last search. If additional searches are then required, the user need only issue BEGIN, SEARCH, DCS, and the program will repeat.

(5) The program concludes as shown in figure 7. Note: %S will abort a System 2000 command, and since the search data is being extracted from System 2000, should be used instead of %A for that purpose.

c. Output. The output begins with an abbreviated version of the requested search as an identifier. This also serves to distinguish between searches if several are strung together. The output format appears as in figure 8 (for a condensed search) or figure 9 (for a full search).

3-4. NEW DOCUMENT ENTRY PROGRAM. This phase of the DCS is reserved for Data Management Branch use only to secure against accidental damage to the data base.

a. Utilization. To input new documents and their accompanying data components, the DCS Custodian issues the following two commands:

attach, dmlib, id=testpa, pw=pete
begin, input, dmlib

b. The Program.

(1) The program begins by supplying the user with the last document entered into the system followed by a request for the new entry's number. (See figure 10. Note the underlined portion represents user response.)

***** DOCUMENT NUMBER *****

ENTER THE DOCUMENT NUMBER (1-4 DIGITS). .

***** TITLE *****

ENTER THE FIRST 72 CHARACTERS OF THE DOCUMENT TITLE.

72 *

***** AUTHOR *****

ENTER THE AUTHOR'S LAST NAME. IF MORE THAN ONE USE THE FIRST LISTED.

***** KEYWORD(S) *****

DO YOU HAVE MORE THAN ONE KEYWORD?(TYPE Y OR N.)

IF YOU WISH TO DO A CONJUNCTIONAL SEARCH FOR YOUR KEYWORDS TYPE C,
OTHERWISE TYPE F.

HOW MANY KEYWORDS WILL YOU BE USING IN YOUR SEARCH? (TYPE 2, OR 3.)

ENTER KEYWORD NUMBER 1

ENTER KEYWORD NUMBER 2

***** INITIALIZING AGENCY *****

ENTER THE NAME OR ACRONYM OF THE INITIALIZING AGENCY.

***** LOCATION *****

ENTER THE PRESUMED LOCATION OF THE DOCUMENT--

***** FUNCTIONAL AREA CODE *****

ENTER THE 2-DIGIT FUNCTIONAL AREA CODE OF THE DOCUMENT.

Figure 6. Unique search by component prompts from DCSREAD

YOUR SEARCH INFORMATION IS BEING DRAWN FROM SYSTEM 2000. TO AVOID A
PRINTOUT TYPE %S *** NOT %A ***.

FOR ADDITIONAL DOCUMENT INFORMATION, OR SEARCH ASSISTANCE CONTACT THE
DATA MANAGEMENT BRANCH AT 39A1/3330.

YOUR DOCUMENT SEARCH RESPONSE WILL APPEAR SHORTLY.

Figure 7. Final display of search program DCSREAD

*CON-KEY1-SPCH(IPIS)%

CONDENSED SEARCH
^8/26/80

DOCUMENT NUMERO	LOCATION	DOCUMENT TITLE	FAC

* 673	MQA	JOINT MEETING OF THE IRIS SPECIALTY GROU	15
		PS ON INFRARED DETECTORS AND ...	
* 1555	DEKINER	MEETING OF THE IRIS SPECIALTY GROUP ON I	2
		INFRARED DETECTORS, VOL II	
* 1556	DEKINER	MEETING OF THE IRIS SPECIALTY GROUP ON I	2
		INFRARED DETECTORS-VOL I	
* 1557	DEKINER	PROCEEDINGS OF THE INFRARED INFORMATION	2
		SYMPOSIUM	
* 1819	DEKINER	MEETING OF THE IRIS SPECIALTY GROUP ON I	2
		INFRARED IMAGING 7-8 NOVEMBER 79	

*FUL-KEY1-SPCH(SGAP)%

-- 0 SELECTED DATA SETS

Figure 8. Sample of a condensed document search

FUL-AUTH-SRCH(RASH)
 DOCUMENT NUMBER--* 963
 TITLE---* FILTERING AND SMOOTHING TIME RELATED DATA
 AUTHOR---* RASH
 PRESENT LOCATION* CMP
 YEAR PUBLISHED--* 77
 CLASSIFICATION--* U
 DOWNGRADING DATE--* ..
 DATE OF ENTRY---*
 FUNCTIONAL AREA CODE* 23
 INITIALIZING AGENCY--* CACDA
 ABSTRACT* THIS PAPER DISCUSSES SEVERAL APPROACHES TO HANDLING THE F
 ILTERING AND SMOOTHING OF TIME RELATED DATA. THE SPECIFIC CAS
 E ADDRESSES THE ATMT DATA.
 KEYWORD* TP11-77
 KEYWORD* ATMT
 KEYWORD* DATA FILTERING
 KEYWORD* DATA SMOOTHING
 KEYWORD* KALMAN FILTERS

Figure 9. Sample of a full document search

(2) The first 72 characters of the document title are then prompted from the user with an asterisk to indicate the 72nd column.

(3) The author, location, year published, classification, downgrade date, date of entry, functional area code, and initializing agency prompts follow and are relatively self-explanatory (see figure 10).

(4) The custodian is next prompted to enter 1-10 keywords (more may be input via System 2000 commands). This is followed by abstract prompting. The abstract is entered as 80 character blocks with "QQ" as the terminator. A convenience feature is incorporated providing the custodian with the flexibility to enter fewer than 80 characters with no ill display effects (see figures 10 and 12).

(5) The program next affords the user an opportunity to check his input for errors. If he so chooses, the entries are displayed for inspection and change capabilities provided. In figure 11 the user has opted to change the document location and then to recheck his entry to illustrate the effect.

(6) Finally, the user is questioned as to another entry. If affirmative, the program recycles; if negative, loading information is displayed and the user may logout.

(7) Figure 12 shows the result of a "full search" for the sample document shown in figures 10 and 11. Note in the abstract that, as mentioned in subparagraph (4) above, the extraneous blanks after the "5" have been ignored resulting in the desired format.

3-5. SYSTEM 2000 CAPABILITIES. To utilize the DCS search capability as described in paragraph 3-3 or the DCS document entry capability just described requires no prior knowledge of System 2000. All necessary input is prompted from the user and massaged to fit System 2000 input format. However, the remaining sections of chapter 3 will require limited knowledge of System 2000 command language. These capabilities could certainly be handled by the same technique as the others, but the benefits derived from machine language communication far outweigh the effort required to learn the few basic commands necessary. This is especially evident in subparagraph c below. The following subparagraph is reserved for Data Management personnel for obvious reasons, but the other sections are available to any user interested in exploiting all ramifications of the system. To access System 2000, and more specifically the DCS data base, issue the following commands:

```
attach, s2k, s2k260, id=sys2000
s2k
user, pete %
dbn is dmlib %
```

a. Document Update Routines. There are three types of updating desirable to maintain a functional document control system. These, along with the specific techniques for their execution, are described in the following subparagraphs. All are handled by means of System 2000 subprograms called "strings". To execute these subprograms, the user must attach System 2000 and gain access to the DCS

WOULD YOU LIKE TO CHECK YOUR ENTRY BEFORE CONTINUING? ENTER Y OR N. Y

1. DOCUMENT NUMBER - AAAA

2. TITLE -

XX12

3. AUTHOR - XXX

4. LOCATION - XXX

5. YEAR PUBLISHED - 88

6. CLASSIFICATION - X

7. DOWNGRADE DATE - XX

8. DATE OF ENTRY - MON YR

9. FUNCTIONAL AFPA CODE - 89

10. INITIALIZING AGENCY - XXXXXXXXXXXXXXXXXXXXXXX

11. KEYWORD NUMBER 1 IS - XXXXXXXXXXXXXXXXXXXXXXX

11. KEYWORD NUMBER 2 IS - XXXXXXXXXXXXXXXXXXXXXXX

12. ABSTRACT -

XX

1234

5678

DO YOU NEED TO MAKE ANY CORRECTIONS TO THE ENTRY BEFORE CONTINUING?

ENTER Y OR N. Y

Figure 11. Sample of input check/correction capabilities (continued next page)

ENTER THE NUMBER (1-12) WHICH PRECEDES THE ENTRY VALUE YOU WISH TO CHANGE.

- | | | |
|-------------------------|------------------|-------------------------|
| 1. DOCUMENT NO. | 2. TITLE | 3. AUTHOR |
| 4. LOCATION | 5. YR. PUBLISHED | 6. CLASSIFICATION |
| 7. DOWNGRADE DATE | 8. ENTRY DATE | 9. FUNCTIONAL AREA CODE |
| 10. INITIALIZING AGENCY | 11. KEYWORDS | 12. ABSTRACT |

4

LOCATION (1-39 CH.) - NEW LOCATION

WOULD YOU LIKE TO CHECK YOUR ENTRY BEFORE CONTINUING? ENTER Y OR N. Y

1. DOCUMENT NUMBER - 8888

2. TITLE -

XX012

3. AUTHOR - XX

4. LOCATION - NEW LOCATION

5. YEAR PUBLISHED - 88

6. CLASSIFICATION - X

7. DOWNGRADE DATE - XX

8. DATE OF ENTRY - MON YR

9. FUNCTIONAL AREA CODE - 88

10. INITIALIZING AGENCY - XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

11. KEYWORD NUMBER 1 IS - XXXXXXXXXXXXXXXXXXXXXXXX

11. KEYWORD NUMBER 2 IS - XXXXXXXXXXXXXXXXXXXXXXXX

12. ABSTRACT -

XX

1234

5678

DO YOU HAVE ANOTHER DOCUMENT TO ENTER? TYPE Y OR N. N

Figure 11. Sample of input check/correction capabilities (concluded)
(Note: User responses are underlined.)

```

*FUL-000#-SOCH (88881%
DOCUMENT NUM#9--* 8888
TITLE--* XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX012
AUTHOR--* XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
PRESENT LOCATION* NEW LOCATION
YEAR PUBLISHED--* 88
CLASSIFICATION--* X
DOWNGRANE DATE--* XX
DATE OF ENTRY--* MON YR
FUNCTIONAL AREA CODE* 88
INITIALIZING AGENCY--* XXXXXXXXXXXXXXXXXXXXXXXX
ARCTACT* XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX1234 5678
KEYWORD* XXXXXXXXXXXXXXXXXXXXXXXX
KEYWORD* XXXXXXXXXXXXXXXXXXXXXXXX

```

Figure 12. Result of search for document input in figures 10 and 11

data base as explained above. Once linked with the data base, the commands described in the following subparagraphs will accomplish the specified updating. For a more in-depth look at the string construction, refer to chapter 4.

(1) Adding data. Specifically a "string" has been written to add new keywords to an existing document. Addition to other components is unlikely to be necessary though possible as will be discussed in paragraph 3-7. To invoke the "string" the user simply issues the following command:

*C200 (new keyword, document number) %.

The first parameter becomes an additional keyword linked to the document number corresponding to the second parameter. The "*C200" is the abbreviated call name for the string and the % is the System 2000 terminator.

(2) Removing data. As with adding data, only the keyword component appears to require this flexibility. A keyword is removed as follows:

*C210 (old keyword, document number) %.

The first parameter represents the keyword being deleted from the document whose number corresponds to the second parameter.

(3) Changing data. Several components may require change capability. Location, for instance, must be changed regularly to maintain an updated system. Classification and downgrade date also require periodic change. Execution of these changes is initialized as follows:

(a) To change the location of a document--

*C310 (new location, document number) %.

(b) To change the classification of a document--

*C320 (new classification, document number) %.

(c) To change the downgrade date--

*C330 (new date, document number) %.

(4) Other updating. As previously mentioned, "strings" have been created to perform the updates discussed in subparagraph a above. Additional updates are only moderately more difficult via System 2000 language commands. These will be briefly covered in paragraph 3-7.

b. Report Generating. The four major reports inherent to the previous Document Control System are also provided for in the present system. System 2000 provides several alternative methods of report production in varying formats. The method chosen involves creation of "strings" to produce a default formatted listing of all document data available. By handling report generation in the same fashion as updating, necessary user knowledge of System 2000 is minimized. The user has the option of viewing the report results on the CRT or producing a

hardcopy printout. The commands described below will produce the appropriate report in hardcopy form at DPFO. If the user wishes only to view the report findings on the CRT, he may do so by deleting those commands in quotes.

(1) Downgrade report.

"Report file is <name> %"
*C800 (downgrade date) %.
"Exit %"
"Batch, name, print, ID"

*C800, as mentioned in subparagraph a(1) above, is the abbreviated string call name and of course downgrade date is the last two digits of the downgrade year. The commands in quotes will be deleted in the following example but are, as previously mentioned, necessary to produce a hardcopy printout.

(2) Monthly acquisition report.

*C810 (entry date) %.

The entry date format consists of the three-letter month abbreviation followed by the two-digit year abbreviation.

(3) Functional area report.

*C820 (functional area code) %.

(4) Inventory (location) report.

*C830 (location) %.

(5) Other reports. Producing additional reports is a relatively simple task and will be discussed as a portion of the next session.

c. Flexibility. The flexibility of the DCS is provided by the inherent modification capabilities of System 2000. Through some general knowledge of System 2000 machine language the user is afforded additional search, update, and report generating capabilities. (Update is reserved for Data Management Branch use only.)

(1) System 2000 additional search capabilities. Once linked to the data base, the following System 2000 commands are useful as supplemental search tools. The list will be kept at a minimum, yet substantially improve the user's search capabilities.

(a) DESCRIBE %. This command will provide a listing of the various components of the data base (see figure 13). The displayed component numbers (i.e., C1, C2,) will be used as abbreviations representing the corresponding components (i.e., document number, title,). A list such as C1, C2, C5, C8, C21 is called an "object list" and will be used as a parameter in the print command format which follows.

```

DESCRIBE%
SYSTEM RELEASE NUMBER      2.60F
DATA BASE NAME IS CMLIB
DEFINITION NUMBER         4
DATA BASE CYCLE           23R
1* DOCUMENT NUMBER- (INTEGER NUMBER 9999)
2* TITLE--- (NAME X(40))
3* AUTHOR-- (NAME X(12))
4* PRESENT LOCATION (NAME X(12))
5* YEAR PUBLISHED-- (INTEGER NUMBER 99)
6* CLASSIFICATION-- (NAME X)
7* DOWNGRADE DATE-- (NAME XX)
8* DATE OF ENTRY--- (NAME X(7))
9* FUNCTIONAL AREA CODE (INTEGER NUMBER 99)
10* INITIALIZING AGENCY- (NAME X(8))
20* KEY (RG)
21* KEYWORD (NAME X(10) IN 20 WITH MANY FUTURE ADDITIONS)
30* ABST (RG IN 20)
71* ABSTRACT (NON-KEY NAME X(90) IN 30)

```

Figure 13. Data base definition displayed via "DESCRIBE %"

(b) PRINT <object list>. The print command displays a listing of the data values represented in the "object list." In this manner the user may print only that information in which he is interested as opposed to all information about a document. Any component number except C20 or C30 is acceptable as part of an "object list." The word "entry" represents an "object list" of all components (i.e., prints all data available).

(c) WHERE <quantifier clause> %. This phrase completes the print command. The "quantifier clause" allows the user to search more specifically for documents of interest. For example, the search program of paragraph 3-3 will allow the user to search for a specific keyword or author, but if both are known, the program does not allow for conjunctional searching across components. By means of the quantifier clause, the user has the ability to locate documents by that particular author that also have that specific keyword. An example of a "quantifier clause" might look like the following:

```
. . . . C1 EQ 1400 (EQ - EQUALS)
. . . . C3 EQ DOE and C21 EQ KEY 1
. . . . C1 GT 1400 (GT - GREATER THAN)
```

Figure 14 shows several print commands in their entirety accompanied by the system response.

(d) EXIT %. To return to the command mode simply issue the EXIT % command. System 2000 will remain attached and may be recalled by issuing "S2K", but to issue additional System 2000 commands, the data base will have to again be accessed.

(e) %S. Depressing the break or escape key followed by typing %S will abort a System 2000 command. %A performs this function normally, but may, though unlikely, cause temporary data base damage if issued while "in System 2000."

(f) Others. Of course, System 2000 machine language provides many additional capabilities including format variations, but these are beyond the scope of this manual.

(2) System 2000 additional update capabilities. Occasionally the DCS custodian may find it necessary to update a component not specifically attended to by a "string" (generally due to a typing or read error). These can be handled by means of the CHANGE command. Below is an example of the CHANGE command format (for obvious reasons this ability is reserved for Data Management personnel).

```
CHANGE C1 EQ 1300 * WHERE C1 EQ 1299%.
```

The effect of this issuance would be to change document number 1299 to document number 1300.

(3) Report generating. If circumstances warrant a need for additional hardcopy reports, System 2000 provides that flexibility. Printouts of all or partial document information can be created based on whatever criteria are chosen. The procedure is to create a System 2000 "report file" which becomes the system

PRINT C1,C2,C3 WH C1 EQ 100%

DOCUMENT NUMBER-- 100
 TITLE---* CLGP OT I,VOL I
 AUTHOR---* QTEA

PRINT C1,C2, WH C3 EQ RASFX

DOCUMENT NUMBER-- 863
 TITLE---* FILTERING AND SMOOTHING TIME RELATED DATA

PRINT C1,C2,C31 WH C1 LT 3%

DOCUMENT NUMBER-- 1
 TITLE---* AUTHORIZED ABBREVIATIONS-ACRONYMS
 ABSTRACT* THIS DOC IS A LIST OF AUTHORIZED ABBREVIATIONS, ACRONYMS,
 AND PREFIX CODES FOR USE WITHIN CACOA WHICH ARE DIFFERENT F
 ROM THOSE IN AP 310-5.

DOCUMENT NUMBER-- 2
 TITLE---* A REVIEW OF SEVEN DOAS PAPERS OF MATHEMATICAL MODELS OF ATTOR
 TION
 ABSTRACT* CONTAINS A DESCRIPTION AND CRITICAL REVIEW OF 7 PAPERS OF
 THE MATH OF COMBAT ATTRITIONPREPARED BY STAFF MEMBERS OF THE
 DEFENSE OPERATIONAL ANALYSTS ESTABLISHMENT OF THE U. K.

PRINT C1,C2 WH C4 EQ DENIEDD AND C21 EQ IPISV

DOCUMENT NUMBER-- 1555
 TITLE---* MEETING OF THE IRIS SPECIALTY GROUP ON INFRARED DETECTORS, VO
 L II

DOCUMENT NUMBER-- 1556
 TITLE---* MEETING OF THE IRIS SPECIALTY GROUP ON INFRARED DETECTORS-VOL
 I

DOCUMENT NUMBER-- 1557
 TITLE---* PROCEEDINGS OF THE INFRARED INFORMATION SYMPOSIUM

DOCUMENT NUMBER-- 1819
 TITLE---* MEETING OF THE IRIS SPECIALTY GROUP ON INFRARED IMAGING 2-8 N
 OVEMBER 70

Figure 14. Sample print commands and machine responses

output file and then print that report file. This is done as discussed in subparagraph b above by issuing the command "REPORT FILE IS <name> %" and then "BATCHing" that file to be printed upon "EXITing" System 2000. The report file is simply a local file created by System 2000 containing the system response(s). As a local file it is subject to user perusal as well as all other local file user options.

CHAPTER 4

PROGRAM DOCUMENTATION

4-1. PURPOSE. It is assumed that the reader is familiar with both FORTRAN and NOS/BE languages. This chapter includes a thorough documentation of the data base definitions including "string" definitions and the FORTRAN prompting programs written to simplify system access. Also documented are the control language programs liaising the FORTRAN programs with System 2000. These are included as part of the manual in the hope of assisting anyone desiring to improve, adapt, or amend the present system.

4-2. GENERAL INFORMATION. A great deal of effort was involved in transferring and appropriately reformatting data from the previous DMB structured DCS to the present DCS which utilizes the CDC 6500 existing data management system, System 2000. The DATA BASE DEFINITION establishes the hierarchical structure as well as size constraints for the basic components of the data base. The STRING DEFINITIONS consist of System 2000 language commands providing an abbreviated method for execution of those commands. These command strings are the "meat" of the system. The user responses to the FORTRAN PROMPTING PROGRAMS are written to a file in the appropriate string format. The CONTROL LANGUAGE PROGRAM then attaches System 2000, accesses the DCS data base, and initiates input of the newly created file. The previously defined strings called through this file then produce the requested output. This technique will be further discussed in paragraph 4-4. For ease of reference, a breakout is provided below of the four main program listings showing how they are subdivided and where they appear within the chapter. DCSREAD and DMLIBINPUT are FORTRAN programs which prompt the user for search criteria or data regarding a new document being entered into the system respectively. DCS and DMLIB are the related control language programs.

<u>Program</u>	<u>Paragraph</u>	<u>Program Subdivisions</u>	<u>Figure No.</u>	<u>Page</u>
DCSREAD	4-5	Search menu display	18	4-9
		Full and condensed search definition	18	4-10
		Document number search	19	4-11
		Title search	20	4-12
		Author search	21	4-13
		Type of keyword search	22	4-14
		Search for 2 keywords	22	4-15
		Search for 3 keywords	22	4-16
		Search for 1 keyword	22	4-17
		Initializing agency search	23	4-18
		Location search	24	4-19
		Functional area code search	25	4-20
		Final informational display	26	4-21
DCS	4-6		27	4-22
DMLIBINPUT	4-7	Input of document no., title	28	4-23
		Input of author, location, publication date	28	4-24

<u>Program</u>	<u>Paragraph</u>	<u>Program Subdivisions</u>	<u>Figure No.</u>	<u>Page</u>
DMLIBINPUT (Cont)		Input of classification, downgrade date, functional area code, initializing agency	28	4-25
		Input of keyword	28	4-26
		Input of abstract	28	4-27
		Entry check routine	29	4-28
		Entry change routine	29	4-29
		Entry change menu display	29	4-30
		Output data/System 2000 command file	30	4-31
		Output (cont!) and System 2000 termination	30	4-32
DMLIB	4-8		31	4-33

4-3. DATA BASE DEFINITION. The 12 categories of document information maintained in the previous DCS were of course preserved in the new. The data base definition as shown in figure 15 relegates numbers to each of these categories establishing the hierarchical structure inherent to System 2000. System 2000 refers to this as the component number. Following the component number is the component name. At any time a component may be referenced by either its number or name. Following the component name is the component description which establishes the type of data and the size constraints (picture designation) of that data. Within this picture designation 999 or 9(3) indicates a three-digit integer format while XXX or X(3) indicates a character string of three characters. A picture designation of RG defines a "repeating group" which represents a repeatable data set (i.e., component(s) which may have more than one value).

4-4. STRING DEFINITIONS. Sequential to defining the data base is the definition of any strings the user feels may be useful. These strings, as previously mentioned, are an abbreviated means of executing what might be complex System 2000 commands to produce the desired output. A string is a series of defined characters to which the string name (or string component number) refers and which replaces the string name (or number) when the latter occurs in a command. For example, if a string were defined as follows:

900*SAMPLE (STRING (PRINT C1, C2, C3 WH C1 EQ 200%))

the user could execute the desired print command by simply issuing--

*C900 % or *SAMPLE %.

In either case, the result would be a listing of components one through three (document number, title, author) for document number 200. To be more functional strings may be written containing variables to be assigned a value upon execution. A string like the following:

900*NEW SAMPLE (STRING (PRINT C1, C2, C3 WH C1 EQ *1*))

allows the user to supply the value to replace the variable *1* upon issuance. In this manner the user may print components one through three for the document of his choice by simply issuing--

```

SYSTEM RELEASE NUMBER      2.60F
DATA BASE NAME IS CMLIB
DEFINITION NUMBER        4
DATA BASE CYCLE          238
1*  DOCUMENT NUMBER- (INTEGER NUMBER 0000)
2*  TITLE--- (NAME X(40))
3*  AUTHOR-- (NAME X(12))
4*  PRESENT LOCATION (NAME X(12))
5*  YEAR PUBLISHED-- (INTEGER NUMBER 99)
6*  CLASSIFICATION-- (NAME X)
7*  DOWNGRADE DATE-- (NAME XX)
8*  DATE OF ENTRY--- (NAME X(7))
9*  FUNCTIONAL AREA CODE (INTEGER NUMBER 99)
10* INITIALIZING AGENCY- (NAME X(8))
20* KEY (PG)
21* KEYWORD (NAME X(18) IN 20 WITH MANY FUTURE ADDITIONS)
30* ABST (PG IN 20)
31* ABSTRACT (NON-KEY NAME X(80) IN 30)

```

Figure 15. Data base definition

***C900 (any document number)% or *SAMPLE (any document number)%.**

a. Figure 16 is a listing of the "search" strings defined for the DCS data base. As will be seen in paragraph 4-5, these strings are called to produce the requested document search data indirectly by the FORTRAN prompting program DCSREAD.

b. Figure 17 is a listing of the remaining strings defined for the DCS data base. These strings were created to expedite updating and report generating. The updating strings, 200 through 330, contain multiple variables for which the user must supply values upon execution. Unlike the strings in figure 16, the user must have previously attached System 2000 and accessed the DCS data base (DMLIB) to utilize these strings.

4-5. DOCUMENT SEARCH PROGRAM. The document search program DCSREAD was designed to prompt the user for known document information and write that information to a file (TAPE 7) formatted as one of the strings discussed in the last paragraph. At that point the control language program DCS takes over providing the link to System 2000 (see paragraph 4-6). The following pages contain a copy of the entire search program including comment cards to explain each line's function. The program is broken down into subroutines corresponding to the known document information input. Figure 18 is the initial part of the main program. Following that are figures 19 through 26 which contain listings of different subsections of the program as determined by the user selected menu number. The document number, title, author, keyword, initializing agency, location, and functional area code search subroutines can be seen respectively in these figures.

4-6. SEARCH CONTROL LANGUAGE PROGRAM. The control language program DCS provides the link between the FORTRAN prompting program in paragraph 4-5 and System 2000. The cyber control language allows the mixture of NOS/BE and System 2000 commands. Figure 27 lists DCS including comment cards to explain each line's function.

4-7. DCS INPUT PROGRAM. The DCS input program DMLIBINPUT was designed to simplify the input of new data for the system custodian. As in DCSREAD, the user is prompted to furnish data responses which are written to a file (TAPE 7) later to become the data file for the System 2000 data base. As before, this data must be specially formatted for System 2000. The control language program DMLIB (to be discussed in paragraph 4-8) then links System 2000 with the DMLIBINPUT responses. The following pages list the DMLIBINPUT program including comments to explain each line's function. The program is divided into three sections: Input, Check/Correct, and Output (figures 28 through 30 respectively).

4-8. INPUT CONTROL LANGUAGE PROGRAM. The control language program DMLIB provides the link between the FORTRAN prompting program in paragraph 4-7 and System 2000. Figure 31 lists DMLIB including comment cards to explain each line's function.

```

110* FUL-ALL-SPCH (STRING (POINT /NAME, REPEAT SUPPRESS/ BY C3, C1, C2
, C3, C4, C5, C6, C7, C8, C9, C10, C31 WH))
111* FUL-DOC*-SRCH (STRING (*C100* ENTRY HAS C1 EQ *1*%POINT C21
WH SAME%))
112* CON-DOC*-SRCH (STRING (POINT /NAME, REPEAT SUPPRESS/ C1, C2, C3, C4
, C5, C6, C7, C8, C9, C10, C31 WH ENTRY HAS C1 EQ *1*%))
113* FTS (STRING (*C100* ENTRY HAS C2 EQ *1*%POINT C21
WH SAME%))
114* QTS (STRING (POINT /NAME, REPEAT SUPPRESS/ C1, C3, C4, C5,
C6, C7, C8, C9, C10, C31 WH ENTRY HAS C2 EQ *1*%))
115* FUL-AUTH-SPCH (STRING (*C100* ENTRY HAS C3 EQ *1*%POINT C21
WH SAME%))
116* CON-AUTH-SPCH (STRING (POINT /NAME, REPEAT SUPPRESS/ C1, C2, C4, C
5, C6, C7, C8, C9, C10, C31 WH ENTRY HAS C3 EQ *1*%))
117* FUL-KEY1-SPCH (STRING (*C100* ENTRY HAS C21 EQ *1*%))
118* CON-LIST-SPCH (STRING (LIST /TITLE C(20) CONDENSED SEARCH,
L(4) DOCUMENT+NUMBER, L(12) LOCATION, L(40) DOCUMENT TITLE
, L(2) FAC/C1, C4, C2, C3 WH))
119* CON-KEY1-SPCH (STRING (*C130* ENTRY HAS C21 EQ *1*%))
120* FUL-CONJ-KEY2-SPCH (STRING (*C100* ENTRY HAS C21 EQ *1*
AND ENTRY HAS C21 EQ *2*%))
121* CON-CONJ-KEY2-SPCH (STRING (*C170* ENTRY HAS C21 EQ *1*
AND ENTRY HAS C21 EQ *2*%))
122* FUL-DISJ-KEY2-SPCH (STRING (*C100* ENTRY HAS C21 EQ *1*
OR ENTRY HAS C21 EQ *2*%))
123* CON-DISJ-KEY2-SPCH (STRING (*C170* ENTRY HAS C21 EQ *1*
OR ENTRY HAS C21 EQ *2*%))
124* FUL-CNJ-3-SPC (STRING (*C100* ENTRY HAS C21 EQ *1*
AND ENTRY HAS C21 EQ *2* AND ENTRY HAS C21 EQ *3*%))
125* CON-CNJ-3-SPC (STRING (*C130* ENTRY HAS C21 EQ *1*
AND ENTRY HAS C21 EQ *2* AND ENTRY HAS C21 EQ *3*%))
126* FUL-DSJ-3-SPC (STRING (*C100* ENTRY HAS C21 EQ *1*
OR ENTRY HAS C21 EQ *2* OR ENTRY HAS C21 EQ *3*%))
127* CON-DSJ-3-SPC (STRING (*C130* ENTRY HAS C21 EQ *1*
OR ENTRY HAS C21 EQ *2* OR ENTRY HAS C21 EQ *3*%))

```

Figure 16. String definitions related to search program DCSREAD (continued next page)

```

151* FUL-AGNCY-SRCH (STRING (*C100* ENTRY HAS C10 EQ *1*))
152* CON-AGNCY-SPCH (STRING (*C120* ENTRY HAS C10 EQ *1*))
161* FUL-LOC-SPCH (STRING (*C100* ENTRY HAS C4 EQ *1*))
162* CON-LOC-SRCH (STRING (*C170* ENTRY HAS C4 EQ *1*))
171* FUL-FAC-SPCH (STRING (*C100* ENTRY HAS C9 EQ *1*))
172* CON-FAC-SPCH (STRING (*C130* ENTRY HAS C9 EQ *1*))

```

Figure 16. String definitions related to search program DCSREAD (continued next page)

STRING NUMBER(S)	EXPLANATION
100	Produces a listing of all twelve categories of information (components) as quantified by another string.
101	Calls string 100 to print all components for a specific document number.
102	Produces a condensed list of information for a specific document number.
111	Calls string 100 to print all components for specific document title.
112	Produces a condensed list of information for a specific document title.
121	Calls string 100 to print all components for any document written by a specific author.
131, 133, 135, 137, 139	Call string 100 to print all components for any documents containing all of the specified keywords (131, 133, 137) or any of the specified keywords (135, 139).
130	Produces a specially formatted listing of components 1, 2, 4 and 9 (i.e. document number, title, location and functional area code) as quantified by another string.
132, 134, 136, 138, 140	Call string 130 to print the condensed listing described above for any documents containing all of the specified keywords (132, 134, 138) or any of the specified keywords (136, 140).
151, 152	Call strings 100 or 130 to produce a complete or partial listing of components respectively, for any document initialized by a specific agency.
161 & 162, 171 & 172	Mimic strings 151 and 152 for any document in a specific location or categorized under a certain functional area respectively.

Figure 16. String definitions related to search program DCSREAD (concluded)


```

PROGRAM DCSREAD (TAPE5=/260,TAPE6,TAPE7=/260)
DIMENSION TITLE(72),AUTHOR(3),KEY(3),WORD(3)
INTEGER FAC
CALL CONNET (5)
CALL CONNET (6)

C** LINES 18-190 WRITE THE S2K COMMAND "ECHO ON" TO TAPE7 (TAPE7 WILL
C** EVENTUALLY BE THE S2K INPUT FILE). THIS WILL DISPLAY THE STRING NAME
C** IDENTIFYING THE SEARCH RESPONSE.
WRITE (7,9)
9 FORMAT (" ECHO ON%")
ITCOUNT = 0

C** LINES 22-370 WRITE THE SEARCH MENU.
1 WRITE (6,10)
10 FORMAT (1H,34X,"SEARCH MENU"/)
21 WRITE (6,20)
20 FORMAT (1H,21X,"1. DOCUMENT NUMBER.")
30 WRITE (6,30)
30 FORMAT (1H,21X,"2. DOCUMENT TITLE.")
40 WRITE (6,40)
40 FORMAT (1H,21X,"3. AUTHOR.")
50 WRITE (6,50)
50 FORMAT (1H,21X,"4. KEYWORD(S).")
60 WRITE (6,60)
60 FORMAT (1H,21X,"5. INITIALIZING AGENCY.")
70 WRITE (6,70)
70 FORMAT (1H,21X,"6. PRESENT LOCATION OF THE DOCUMENT.")
80 WRITE (6,80)
80 FORMAT (1H,21X,"7. 2 DIGIT FUNCTIONAL AREA CODE."/)
C** LINES 390-410 REQUEST INPUT OF MENU NUMBER.
85 WRITE (6,90)
90 FORMAT (1H, "TYPE THE SMALLEST NUMBER FROM THE ABOVE MENU CORRESPONDING TO KNOWN INFORMATION",/, " CONCERNING THE DOCUMENT.",3X)
GO TO 97

C** LINES 44-460, ERROR HANDLING DISPLAY PROMPTED BY LINE 510
15 WRITE (6,95)
26 FORMAT (1H, "THE VALUE ENTERED DOES NOT CORRESPOND TO ONE FROM THE SEARCH MENU. PLEASE ENTER",/, " A NUMBER BETWEEN 0 AND 8.",3X)

```

Figure 18. Initial portion of DCSREAD main program (continued next page)

```

97  KNOWN = 0
C** *** KNOWN = THE MENU NUMBER INPUT BY THE USER***
    READ (5,*) KNOWN
C** TO TAKE CARE OF ERRONEOUS INPUT BY THE USER.
    IF (KNOWN.LT.1.OR.KNOWN.GT.7) GO TO 95
C** ITCOUNT = A COUNTER TO ELIMINATE THE FULL AND CONDENSED SEARCH REF-
C** INITIONS AFTER THE FIRST PASS THROUGH THE PROGRAM.
    IF (ITCOUNT.GT.0) GO TO 115
    ITCOUNT = ITCOUNT + 1
C** LINES 570-650 WRITE THE DEFINITION OF "FULL" AND "CONDENSED" SEARCH.
    WRITE (6,100)
100  FORMAT (1H,"A ""FULL SEARCH"" INCLUDES DOCUMENT #,TITLE,AUTHOR,LOG-
    IATION,YP. PUBLISHED,")
    WRITE (6,105)
105  FORMAT (1H,"CLASSIFICATION,DOWNGRADE DATE,ENTRY DATE,FUNCTIONAL AP-
    PICATION,INITIALIZING AGENCY, ABSTRACT AND KEYWORDS."//)
    WRITE (6,110)
110  FORMAT (1H,"A ""CONDENSED SEARCH"" WILL INCLUDE ONLY THAT INFORMAT-
    ION CONSIDERED MOST",," SIGNIFICANT."//)
C** LINES 670-690 REQUEST F OR C INPUT (FULL OR CONDENSED SEARCH).
115  WRITE (6,120)
120  FORMAT (1H,"IF YOU ARE INTERESTED IN A CONDENSED SEARCH TYPE C, OR
    IN A FULL SEARCH TYPE F.",2X)
    GO TO 127
C** LINES 720-740, ERROR HANDLING DISPLAY PROMPTED BY LINE 701.
125  WRITE (6,126)
126  FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST
    PLEASE ENTER F OR C.",2X)
127  FORDC = 0.
C** *** FORDC = "F" FOR A "FULL SEARCH": "C" FOR A CONDENSED SEARCH.
    READ (5,130) FORDC
130  FORDC = (141)
C** IF (FORDC.NE."F".AND.FORDC.NE."C") GO TO 125
C** LINE 820 JUMPS TO THE APPROPRIATE SUBROUTINE IN ACCORDANCE WITH THE
C** MENU NUMBER SELECTED.
    GO TO (1000,2000,3000,4000,5000,6000,7000) KNOWN

```

Figure 18. Initial portion of DCSREAD main program (concluded)

```

C** ***** SEARCHING BY DOCUMENT NUMBER *****
C** LINES 850-859 REQUEST USER INPUT OF DOCUMENT NUMBER.
1000 WRITE (6,1010)
1010 FORMAT (1H,"ENTERED THE DOCUMENT NUMBER (1-4 DIGITS).",3X)
      GO TO 1017
C** LINES 890-919, ERROR HANDLING DISPLAY PROMPTED BY 960.
1015 WRITE (6,1016)
1016 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,P
      PLEASE ENTER A NUMBER",/, " BETWEEN 0 AND 9999.")
1017 NUMBER = 0
C** *** NUMBER = THE 4-DIGIT DOCUMENT NUMBER.***
      READ (5,*) NUMBER
C** TO TAKE CARE OF SPORADIC INPUT.
      IF (NUMBER.LT.0.00.NUMBER.GE.9999) GO TO 1015
      IF (0000.EQ."F") GO TO 1050
C** LINES 1000-1050 WRITE TO TAPE7 IN THE APPROPRIATE STRIPING FORMAT
C** (DEPENDENT UPON 760-780) SUPPLYING THE DOCUMENT # FOR THE VARIABLE.
      WRITE (7,1020) NUMBER
1020 FORMAT ("CON-DOC#-SECH(",15,")%")
      GO TO 8000
1050 WRITE (7,1060) NUMBER
1060 FORMAT ("FUL-DOC#-SECH(",15,")%")
      GO TO 8000

```

Figure 19. Document number search subroutine

```

C** ***** SEARCHING BY DOCUMENT TITLE *****
C** LINES 1000-1100 REQUEST USER INPUT OF DOCUMENT TITLE.
2000 WRITE (6,2010)
2010 FORMAT (1H,"ENTER THE FIRST 72 CHARACTERS OF THE DOCUMENT TITLE."
1/)
C** PRINTS INDICATOR IN COLUMN 72.
WRITE (6,2015)
2015 FORMAT (59X,"72 *"/)
ON 2025 I=1,72
TITLE(I) = 0.0
2025 CONTINUE
READ (5,2020) (TITLE(I), I=1,72)
C** THE ABOVE READS THE TITLE IN AS 72 1-CHARACTER STRINGS
2020 FORMAT (72A1)
IF (FOPC.EQ."F") GO TO 2050
C** LINES 1230-1280 WRITE TO TAPE7 IN THE APPROPRIATE STRING FORMAT
C** (DEPENDENT UPON 760-780) SUPPLYING THE TITLE FOR THE VARIABLE.
WRITE (7,2030) (TITLE(I),I=1,72)
2030 FORMAT ("*CTS(",72A1,")%")
GO TO 2000
2050 WRITE (7,2060) (TITLE(I),I=1,72)
2060 FORMAT ("*FTS(",72A1,")%")
GO TO 2000

```

Figure 20. Title search subroutine

```

C** ***** SEARCHING BY AUTHOR *****
C** LINES 1310-1330 REQUEST USED INPUT OF AUTHORS LAST NAME.
3000 WRITE (6,3010)
3010 FORMAT (1H,"ENTERED THE AUTHORS LAST NAME, IF MORE THAN ONE USE THE
1FIRST LISTED."/)
DO 3025 I=1,3
  AUTHOR(I) = 0.
3025 CONTINUE
3026 READ (5,3026) (AUTHOR(I),I=1,3)
3026 FORMAT (3A10)
  IF (FPOS.EOF."F") GO TO 3050
C** LINES 1420-1470 WRITE TO TAPE 7 IN THE APPROPRIATE STING FORMAT
C** (DEPENDENT UPON *60-780) SUPPLYING THE AUTHOR FOR THE VARIABLE.
  WRITE (7,3030) (AUTHOR(I),I=1,3)
3030 FORMAT ("*CON-AUTH-SPCH(",3A10,"")%")
  GO TO 3000
3050 WRITE (7,3060) (AUTHOR(I),I=1,3)
3060 FORMAT ("*FUL-AUTH-SPCH(",3A10,"")%")
  GO TO 3000

```

Figure 21. Author search subroutine

```

C** ***** SEARCHING BY KEYWORD(S) *****
C** LINES 1510-1520 REQUEST USER INPUT OF Y OR N INDICATING MODE THAN
C** ONE OR ONE KEYWORD RESPECTIVELY.
4000 WRITE (6,4001)
4010 FORMAT (1H,"DO YOU HAVE MORE THAN ONE KEYWORD?(TYPE Y OR N.)",3X)
      GO TO 4018
C** LINES 1550-1570, ERROR HANDLING DISPLAY PROMPTED BY 1640.
4012 WRITE (6,4013)
4013 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,P
      PLEASE ENTER Y OR N.",3X)
4018 YORD1 = 0.
C** ***** YORD1 = "Y" MORE THAN ONE KEYWORD IS TO BE INPUT; "N" ONLY
C** ONE KEYWORD WILL BE USED.
      DECO (5,4,20) YORD1
4020 FORMAT (1A1)
C** TO TAKE CARE OF ERROREOUS INPUT BY USER.
      IF (YORD1.NE.."Y".AND.YORD1.NE.."N") GO TO 4012
      IF (YORD1.EQ.."N") GO TO 4002
C** LINES 1600-1700 REQUEST USER INPUT OF C OR D INDICATING A CONJUNC-
C** TIONAL OR DISJUNCTIONAL SEARCH RESPECTIVELY.
4030 WRITE (6,4040)
4040 FORMAT (1H,"IF YOU WISH TO DO A CONJUNCTIONAL SEARCH FOR YOUR KEYW
      10000 TYPE C.",3X) OTHERWISE TYPE D.",3X)
      GO TO 4044
C** LINES 1730-1750, ERROR HANDLING DISPLAY PROMPTED BY 1820.
4042 WRITE (6,4043)
4043 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,P
      PLEASE ENTER C OR D.",3X)
4044 CORD = 0.
C** ***** CORD = "C" FOR CONJUNCTIONAL SEARCH; "D" FOR DISJUNCTIONAL
C** SEARCH.
      DECO (5,4050) CORD
4050 FORMAT (1A1)
C** TO TAKE CARE OF ERROREOUS INPUT BY THE USER.
      IF (CORD.NE.."C".AND.CORD.NE.."D") GO TO 4042
C** LINES 1850-1870 REQUEST USER INPUT OF 2 OR 3 INDICATING HOW MANY
C** KEYWORDS WILL BE USED IN THE SEARCH.

```

Figure 22. Keyword(s) search subroutine (continued next page)

```

4055 WRITE (5,4060)
4061 FORMAT (1H,"HOW MANY KEYWORDS WILL YOU BE USING IN YOUR SEARCH? (T
      TYPE 2, OR 3.)",3X)
      GO TO 4163
C** LINES 19 0-1020, ERROR HANDLING DISPLAY PROMPTED BY 1970.
4161 WRITE (6,4162)
4162 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,P
      PLEASE ENTER 2 OR 3.",3X)
4163 KEYNUM = 0
C** *** KEYNUM = THE NUMBER OF KEYWORDS TO BE USED IN THE SEARCH.
      READ (5,*) KEYNUM
C** TO TAKE CARE OF ERRONEOUS INPUT BY THE USER.
      IF (KEYNUM.LT.2.OR.KEYNUM.GT.3) GO TO 4161
C** LINE 2000 JUMPS TO THE KEYWORD SEARCH ROUTINE FOR 1,2 OR 3 KEYS.
      GO TO (4055,4061,4072) KEYNUM
C** ***** SEARCHING BY 2 KEYWORDS *****
C** LINES 2020-2040 REQUEST USER INPUT OF THE TWO KEYWORDS.
4061 DO 4071 I=1,2
      WRITE (6,4062) I
4062 FORMAT (1H,"ENTER KEYWORD NUMBER",I2,3X)
      KEY(I)=0
      WORD(I)=0.
C** *** KEY(I) & WORD(I) = THE FIRST AND LAST 10 CHARACTERS OF KEYWORD
C** NUMBER I RESPECTIVELY.
      READ (5,4063) KEY(I),WORD(I)
4063 FORMAT (2A10)
C** LINES 2120-2120 WRITE TO TAPE7 IN THE APPROPRIATE STRING FORMAT
C** (AS DETERMINED BY 760-780 AND 177J-1790) SUPPLYING THE KEYWORDS
C** FOR THE STRING VARIABLES.
      IF (WORD.EQ."0") GO TO 4065
      IF (WORD.EQ."") GO TO 4069
      IF (I.EQ.1) GO TO 4071
      WRITE (7,4164) KEY(1),WORD(1),KEY(2),WORD(2)
4064 FORMAT ("*FUL-CONJ-KEY2-SEARCH(",2A10,"",2A10,"")?")
      GO TO 4070
4065 IF (WORD.EQ."F") GO TO 4067
      IF (I.EQ.1) GO TO 4071

```

Figure 22. Keyword(s) search subroutine (continued next page)

```

4066 WRITE (7,4066) KEY(1),WORD(1),KEY(2),WORD(2)
      FORMAT ("CON-DISJ-KEY?-SRCH(",2A1,"",",",2A10,"")%")
      GO TO 4000
4067 IF (I.EQ.1) GO TO 4071
      WRITE (7,4068) KEY(1),WORD(1),KEY(2),WORD(2)
4068 FORMAT ("FUL-DISJ-KEY?-SRCH(",2A1,"",",",2A10,"")%")
      GO TO 4000
4069 IF (I.EQ.1) GO TO 4071
      WRITE (7,4070) KEY(1),WORD(1),KEY(2),WORD(2)
4070 FORMAT ("CON-CONJ-KEY?-SRCH(",2A1,"",",",2A10,"")%")
      GO TO 4000
4071 CONTINUE
C** ***** SEARCHING BY 2 KEYWORDS *****
4072 DO 4082 I=1,3
      KEY(I)=0
      WORD(I)=0.
C** LINES 2300-2420 REQUEST USER INPUT OF KEYWORDS.
      WRITE (6,4073) I
4073 FORMAT (1H,"ENTER KEYWORD NUMBER",I2,3X)
      READ (6,4074) KEY(I),WORD(I)
4074 FORMAT (2A10)
C** LINES 2460-2457 WRITE TO TAPE7 IN THE APPROPRIATE STRING FORMAT
C** (AS DETERMINED BY 760-780 AND 1770-1790) SUPPLYING THE KEYWORDS
C** FOR THE STRING VARIABLES.
      IF (WORD.EQ."E") GO TO 4076
      IF (WORD.EQ."C") GO TO 4080
      IF (I.LT.3) GO TO 4082
      WRITE (7,4075) KEY(1),WORD(1),KEY(2),WORD(2),KEY(3),WORD(3)
4075 FORMAT ("FUL-CONJ-3-SRCH(",2A10,"",",",2A10,"",",",2A10,"")%")
      GO TO 4000
4076 IF (WORD.EQ."F") GO TO 4078
      IF (I.LT.3) GO TO 4082
      WRITE (7,4077) KEY(1),WORD(1),KEY(2),WORD(2),KEY(3),WORD(3)
4077 FORMAT ("CON-DISJ-3-SRCH(",2A10,"",",",2A10,"",",",2A10,"")%")
      GO TO 4000
4078 IF (I.LT.3) GO TO 4082
      WRITE (7,4079) KEY(1),WORD(1),KEY(2),WORD(2),KEY(3),WORD(3)

```

Figure 22. Keyword(s) search subroutine (continued next page)

```

4079  FORMAT ('**FUL-DSJ-3-SRC(",2A10,"",2A10,"",2A10,"")%")
      GO TO 4000
4080  IF (I.LT.7) GO TO 4082
      WRITE (7,4081) KEY(1),WORD(1),KEY(2),WORD(2),KEY(3),WORD(3)
4081  FORMAT ('**CON-CNJ-3-SRC(",2A10,"",2A10,"",2A10,"")%")
      GO TO 4000
4082  CONTINUE
C** ***** SEARCHING BY ONE KEYWORD *****
C** LINES 2690-2690 REQUEST USER INPUT OF THE KEYWORD.
4092  WRITE (6,4093)
4093  FORMAT (1H,"ENTER THE KEYWORD.",3X)
      KEY(1)=0
      WORD(1)=0.
      READ (5,4095) KEY(1),WORD(1)
4095  FORMAT (2A10)
C** LINES 2760-2820 WRITE TO TAPE7 IN THE APPROPRIATE STRING FORMAT
C** (AS DETERMINED BY 760-780) SUPPLYING THE KEYWORD FOR THE VARIABLE.
      IF (EQC.EQ."F") GO TO 4098
      WRITE (7,4097) KEY(1),WORD(1)
4097  FORMAT ('**CON-KEY1-SRCH(",2A10,"")%")
      GO TO 4000
4098  WRITE (7,4099) KEY(1),WORD(1)
4099  FORMAT ('**FUL-KEY1-SRCH(",2A10,"")%")
      GO TO 4000

```

Figure 22. Keyword(s) search subroutine (concluded)

```

C** ***** SEARCH BY INITIALIZING AGENCY *****
C** LINES 2850-2870 REQUEST USED INPUT OF INITIALIZING AGENCY.
5000 WRITE (6,5010)
5010 FORMAT (14,"ENTERED THE NAME OR ACRONYM OF THE INITIALIZING AGENCY."
1,/)
      AGE=ENCLY=0.
C** ***** AGE & ENCLY = THE FIRST AND LAST 10 CHARACTERS OF THE INITIAL-
C**          IZING AGENCY.
      READ (5,5020) AGE,ENCLY
      FORMAT (2A10)
C** LINES 2050-3010 WRITE TO TAPE7 IN THE APPROPRIATE STRING FORMAT
C** (AS DETERMINED BY 760-780) SUPPLYING THE INIT.AGENCY AS THE VARIABLE
      IF (F000.E0."F") GO TO 5050
      WRITE (7,5030) AGE,ENCLY
      FORMAT ("CON-AGENCY-SECH(",2A10,")%")
      GO TO 8000
5030
      WRITE (7,5060) AGE,ENCLY
      FORMAT ("FUL-AGENCY-SECH(",2A10,")%")
      GO TO 8000

```

Figure 23. Initializing agency search subroutine

```

C** ***** SEARCHING BY LOCATION *****
C** LINES 3040-3050 REQUEST USER INPUT OF DOCUMENTS LOCATION.
6000 WRITE (6,6010)
6010 FORMAT (1H,"ENTER THE PRESUMED LOCATION OF THE DOCUMENT-- ",/)
      PL=OC=ALE=0.
C** ***** PL, OC & ALE = THE FIRST, SECOND & LAST 10 CHARACTERS OF THE
C**          DOCUMENTS LOCATION.
      READ (5,6020) PL,OC,ALE
6020 FORMAT (3A10)
C** LINES 3170-3190 WRITE TO TAPE7 IN THE APPROPRIATE STING FORMAT
C** (AS DETERMINED BY 760-780) SUPPLYING THE LOCATION FOR THE VARIABLE.
      IF (F000.EQ."F") GO TO 6050
      WRITE (7,6030) PL,OC,ALE
6030 FORMAT ("CON-LOC-SRCH(",3A10,")%")
      GO TO 6000
6050 WRITE (7,6060) PL,OC,ALE
6060 FORMAT ("FUL-LOC-SPCH(",3A10,")%")
      GO TO 6070

```

Figure 24. Location search subroutine

```

C** ***** SEARCHING BY FUNCTIONAL AREA CODE *****
C** LINES 3220-3240 REQUEST USER INPUT OF THE FUNCTIONAL AREA CODE.
7000 WRITE (6,70010)
7010 FORMAT (1H,"ENTERED THE 2-DIGIT FUNCTIONAL AREA CODE OF THE DOCUMENT
1.",3X)
      GO TO 7020
C** LINES 3270-3290, ERROR HANDLING DISPLAY PROMPTED BY 3330.
7018 WRITE (6,70010)
7019 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,P
PLEASE ENTER A TWO",/, " DIGIT NUMBER.",3X)
7020 FAC = 0.
C** ***** FAC = THE TWO DIGIT FUNCTIONAL AREA CODE.
      READ (5,4) FAC
C** TO TAKE CARE OF ERRONEOUS INPUT.
      IF (FAC.GT.99.OR.FAC.LT.1) GO TO 7018
C** LINES 3390-3440 WRITE TO TAPE7 IN THE APPROPRIATE STRING FORMAT
C** (AS DETERMINED BY 760-780) SUPPLYING THE FUNCTIONAL AREA CODE FOR
C** THE STRING VARIABLE.
      IF (FOPC.EQ."F") GO TO 7050
      WRITE (7,70030) FAC
7030 FORMAT ("CON-FAC-SPCH(",I2,")%")
      GO TO 8030
7050 WRITE (7,7160) FAC
7060 FORMAT ("FUL-FAC-SPCH(",I2,")%")
      GO TO 8030

```

Figure 25. Functional area search subroutine

```

C** LINES 3470-3490 REQUEST USER INPUT OF Y OR N INDICATING HIS DESIRE
C** TO DO OR NOT DO ANOTHER DOCUMENT SEARCH.
8000 WRITE (6,9010)
9010 FORMAT (1H,"IF YOU WISH TO PERFORM ANOTHER DOCUMENT SEARCH TYPE Y,
10 OTHERWISE TYPE N.",ZX)
      GO TO 9012
C** LINES 3520-3540, ERROR HANDLING DISPLAY PROMPTED BY 3510.
8016 WRITE (6,9017)
9017 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,P
1 PLEASE ENTER Y OR N.",ZX)
8018 YORN2 = 0.
C** **** YORN2 = "Y" ANOTHER DOCUMENT SEARCH IS TO BE RUN: "N" NO
C** ADDITIONAL SEARCHES ARE NEEDED PROCEED WITH THE SEARCH RESPONSE.
      READ (5,9020) YORN2
8020 FORMAT (1A1)
      IF (YORN2.EQ."Y".AND.YORN2.NE."N") GO TO 9016
C** LINE 3620 RE-INITIATES THE PROGRAM BY RE-DISPLAYING SEARCH MENU.
      IF (YORN2.EQ."Y") GO TO 1
C** LINES 3640-3670 WRITE TO TAPE7 WITH FINALIZING SYSTEM 2000 COMMANDS.
      WRITE (7,9020)
8020 FORMAT ("ECHO OFF")
      WRITE (7,9030)
9030 FORMAT ("REWIND TAPE7%EXITY")
      WRITE (6,9040)
C** WARNS USER OF POSSIBLE DATA BASE DAMAGE & SUPPLIES FURTHER
C** ASSISTANCE INFORMATION.
9040 FORMAT (1H,"YOUR SEARCH INFORMATION IS BEING DRAWN FROM SYSTEM 20
103. TO AVOID A ".,," PRINTOUT TYPE %S *** NOT %A ***.",//)
      WRITE (6,9050)
9050 FORMAT (1H,"FOR ADDITIONAL DOCUMENT INFORMATION, OR SEARCH ASSISTA
1NCE CONTACT THE",//," DATA MANAGEMENT BRANCH AT 3981/3330.",//)
      WRITE (6,9060)
9060 FORMAT (1H,"YOUR DOCUMENT SEARCH RESPONSE WILL APPEAR SHORTLY.")
      STOP
      END

```

Figure 26. Final portion of DCSREAD main program

```

.PROC, SEARCH.
C** ATTACHING THE SEARCH PROMPTING OBJECT PROGRAM.
ATTACH,A,DCSEFADDIN,TC=TESTFA,CY=1,MR=1.
A.
NDF.
C** REWINDING TAPE7 WHICH CONTAINS THE USED RESPONSES AND WHICH .
C** WILL EVENTUALLY BE THE SYSTEM 2000 INPUT FILE.
REWIND TAPE7.
ATTACH,S2K,S2K267,IC=SYS2000.
NDF.
C** ESTABLISHING THE SYSTEM 2000 COMMANDS TO BE EXECUTED APPEAR IN A
C** FILE NAMED "IN".
S2K,C=IN.
RETURN,S2K,IN,A,TAPE6,TAPE5,TAPE7.
C** INDICATING THE SYSTEM 2000 COMMANDS ARE TO FOLLOW.
.DATA,IN.
USED,XV%
ECHO OFF%
USER,DLTF%
SHARDEN ON IS 0MLIP%
COMMAND FILE IS TAPE7%
END.
C** COL COMMAND EQUIVALENT TO REWINDING CCS.
REWIND.

```

Figure 27. Cyber control language program DCS

```

PROGRAM DCSTNET (TAPE5,TAPE6,TAPE7,TAPPA)
DIMENSION TITLE(172),AUTHOR(30),LOCALF(30),KEYWORD(10,20),ARST(10,8)
1)
INTEGER DOCNUM,AGENCY,CHANGE,ARST,YDPHR,FAC
CALL CONNEC (5)
CALL CONNEC (6)
C** LASTDOC IS THE NUMBER OF THE LAST DOCUMENT ENTERED IN THE SYSTEM WHT
C** CH IS WRITTEN TO TAPE8 AT THE END OF THIS PROGRAM AND CATALOGUE.
      DEAN (8,4) LASTDOC
      80 WRITE (6,90) LASTDOC
      YDPN2 = 0.
      90 FORMAT (1H,"THE LAST DOCUMENT NUMBER ENTERED WAS ",I4,".")
C** LINES 240-1780 PROMPT USER INPUT OF ALL 12 CATEGORIES OF DOCUMENT
C** INFORMATION.
      100 WRITE (6,110)
C** PROMPTING USER INPUT OF DOCUMENT NUMBER.
      110 FORMAT (1H,"ENTER THE FOLLOWING INFORMATION ABOUT THE DOCUMENT-",/
1/, " DOCUMENT NUMBER (1-4 DIGITS) - ",2X)
      GO TO 115
C** ERROR HANDLING ROUTINE.
      112 WRITE (6,113)
      113 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,
1PLEASE ENTER A",/, " 4-DIGIT NUMBER.",3X)
      115 DOCNUM = 0
C** *** DOCNUM = 4-DIGIT DOCUMENT NUMBER INPUT BY USER.***
      READ (5,*) DOCNUM
C** ERROR HANDLING DISPLAY ABOVE IS PROMPTED HERE.
      IF (DOCNUM.LT.1.OR.DOCNUM.GT.9999) GO TO 112
C** IF YDPN2 IS YES THE USER IS CORRECTING THIS COMPONENT SO THERE'S
C** NO NEED TO INPUT THE OTHER COMPONENTS AGAIN ERGO SKIP TO 1300.
      IF (YDPN2.EQ."Y") GO TO 1300
C** COMPUTING USER INPUT OF DOCUMENT TITLE.
      200 WRITE (6,210)
      210 FORMAT (1H,"TITLE (1-72 CH.) - ")
C** POINTING * IN THE 72ND CHARACTER SPACE AS A GUIDE TO THE USER.
      WRITE (6,215)
      215 FORMAT (69X,"72 *"/)

```

Figure 28. Data input routine of DMLIBINPUT (continued next page)

```

      DO 220 I=1,72
      TITLE(I) = 0.
      *** TITLE(I) = THE ITH CHARACTER OF THE DOCUMENT TITLE. ****
220  CONTINUE
      READ (5,230) (TITLE(I), I=1,72)
      FORMAT (72A1)
      IF (YOUN2.EQ."Y") GO TO 1300
      *** PROMPTING USER INPUT OF DOCUMENTS AUTHOR.
230  WRITE (6,310)
      FORMAT (1H,"AUTHOR (1-30 CH.) - ",3X)
      DO 320 I=1,30
      AUTHOR(I) = 0.
      *** AUTHOR(I) = THE ITH CHARACTER OF THE AUTHORS LAST NAME. ****
320  CONTINUE
      READ (5,330) (AUTHOR(I), I=1,30)
      FORMAT (30A1)
      IF (YOUN2.EQ."Y") GO TO 1300
      *** PROMPTING USER INPUT OF DOCUMENTS LOCATION.
330  WRITE (6,410)
      FORMAT (1H,"LOCATION (1-30 CH.) - ",2X)
      DO 420 I=1,30
      LOCATE(I) = 0
      *** LOCATE(I) = THE ITH CHARACTER OF THE DOCUMENT LOCATION. ****
420  CONTINUE
      READ (5,430) (LOCATE(I), I=1,30)
      FORMAT (30A1)
      IF (YOUN2.EQ."Y") GO TO 1300
      *** PROMPTING USER INPUT OF THE 2-DIGIT YEAR ABBREVIATION.
430  WRITE (6,510)
      FORMAT (1H,"YEAR PUBLISHED (2 DIGITS) - ",2X)
      YEARUP = 0
      *** YEARUP = YEAR OF DOCUMENT PUBLICATION (LAST 2 DIGITS.) ****
510  READ (7,5) YEARUP
      IF (YOUN2.EQ."Y") GO TO 1300
      *** PROMPTING USER INPUT OF DOCUMENTS CLASSIFICATION.
520  WRITE (6,610)
      FORMAT (1H,"CLASSIFICATION (1 CH.) - ",3X)
      CLASS = 0.

```

Figure 28. Data input routine of DMLIBINPUT (continued next page)

```

C**      *** CLASS = "U"- UNCLASSIFIED, "F"- FOR OFFICIAL USE ONLY, "C"-
C**      CLASSIFIED, "S"- SECRET.***
      READ (5, F20) CLASS
      FORMAT (1A1)
      IF (YCON2.EQ."V") GO TO 1300
C**      PROMPTING USER INPUT OF DOCUMENT DOWNGRADE DATE.
700      WRITE (6, 710)
710      FORMAT (14, "DOWNGRADE DATE (2 CH.) - ", 3X)
      DNGRDN = 0.
C**      *** DNGRDN = "..." IF UNCLASSIFIED; OTHERWISE THE 2-DIGIT YEAR
C**      ABBREVIATION.***
      READ (5, 720) DNGRDN
      FORMAT (1A2)
      IF (YCON2.EQ."V") GO TO 1300
C**      PROMPTING USER INPUT OF THE DATE THE DOCUMENT ENTERS THE SYSTEM.
810      WRITE (6, 810)
810      FORMAT (14, "DATE OF ENTRY (MON YR, 6 SPACES) - ", 3X)
      DATENT = 0.
C**      *** DATENT = THE 3 CHARACTER MONTH ABBREVIATION, SPACE, FOLLOWED
C**      BY THE 2-DIGIT YEAR ABBREVIATION.***
      READ (5, 820) DATENT
      FORMAT (1A7)
      IF (YCON2.EQ."V") GO TO 1300
C**      PROMPTING USER INPUT OF THE DOCUMENTS FUNCTIONAL AREA CODE.
900      WRITE (6, 910)
910      FORMAT (14, "FUNCTIONAL AREA CODE (2 DIGITS) - ", 3X)
      FAC = 0
C**      *** FAC = THE 2-DIGIT FUNCTIONAL AREA CODE.***
      READ (5, 920) FAC
      IF (YCON2.EQ."V") GO TO 1300
C**      PROMPTING USER INPUT OF THE DOCUMENTS INITIALIZING AGENCY.
1010      WRITE (6, 1010)
1010      FORMAT (14, "INITIALIZING AGENCY (1-20 CH.) - ", 3X)
      INIT = AGENCY = 0
C**      *** INIT & AGENCY = THE FIRST AND LAST 10-CHARACTER BLOCKS
C**      OF THE INITIALIZING AGENCY NAME.***
      READ (5, 1020) INIT, AGENCY

```

Figure 28. Data input routine of DMLIBINPUT (continued next page)

```

1020 FORMAT (2A10)
IF (VOCN2.EQ."V") GO TO 1300
C** PROMPTING USER INPUT OF THE NUMBER OF KEYWORDS RELATED TO THIS
C** DOCUMENT.
1100 WRITE (6,1110)
1110 FORMAT (1H,"HOW MANY KEYWORDS WILL YOU BE ENTERING? (1-10) - ",3X)
GO TO 1114
C** ERROR HANDLING ROUTINE.
1112 WRITE (6,1113)
1113 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,
1 PLEASE ENTER A",/, " NUMBER FROM 1 TO 10.",3X)
1118 KEY = 0
C** *** KEY = THE NUMBER OF KEYWORDS 1-10 TO BE ENTERED.***
READ (5,4) KEY
C** ERROR HANDLING DISPLAY ABOVE IS PROMPTED HERE.
IF (KEY.LT.1.O2.KEY.GT.10) GO TO 1112
C** PROMPTING USER INPUT OF EACH KEYWORD.
DO 1140 I=1,KEY
WRITE (6,1120) I
1120 FORMAT (1H,"ENTER KEYWORD NUMBER ",I2," (1-20 CH.) - ",3X)
DO 1130 J=1,20
KEYWORD(I,J) = 0
C** *** KEYWORD(I,J) = THE JTH CHARACTER OF THE ITH KEYWORD.***
1130 CONTINUE
C** KEYWORD NUMBER "N" IS STORED IN "KEYWORD(N,J)" WHERE J=1,20.
READ (5,1135) (KEYWORD(I,J), J=1,20)
1135 FORMAT (20A1)
1140 CONTINUE
IF (VOCN2.EQ."V") GO TO 1300
1200 WRITE (6,1210)
1210 FORMAT (1H,"ABSTRACT - ")
DO 1220 I = 1,10
DO 1210 J = 1,8
C** *** ABST(I,J) = THE JTH 10-CHARACTER BLOCK OF THE ITH
C** LINE OF THE ABSTRACT.***
ABST(I,J) = 0
1219 CONTINUE

```

Figure 28. Data input routine of DMLIBINPUT (continued next page)

```

1220 CONTINUE
NCOUNT = 0
DO 1240 I = 1,10
C** PROMPTING USER INPUT OF EACH ABSTRACT LINE.
WRITE (6,1225) I
1225 FORMAT (1H,"ENTER (LINE ",I2," )OF THE ABSTRACT: IF FINISHED TYPE
100."/)
C** EACH ABSTRACT LINE IS READ IN AS 8-10 CHARACTER BLOCKS.
C** E.G. LINE "N" IS STORED AS "ABST(N,J)" WHERE J=1,8 AND EACH
C** UNIT OF J REPRESENTS A 10-CHARACTER BLOCK.
READ (F,1230) (ABST(I,J), J=1,8)
1230 FORMAT (A10)
C** TO SIGNIFY THE END OF AN ABSTRACT THE FIRST 10-CHARACTER BLOCK
C** OF ONE OF THE LINES WILL BE READ AS "00" FOLLOWED BY 3 BLANKS (I.E.
C** A TOTAL OF 10 CHARACTER SPACES.)
IF (ABST(I,1).EQ."00") GO TO 1245
1240 CONTINUE
C** *****NCOUNT WILL BE THE ACTUAL NUMBER OF LINES OF ABSTRACT INPUT
C** SINCE THE ITH LINE CONTAINS ONLY "00".****
1245 NCOUNT = I - 1

```

Figure 28. Data input routine of DMLIBINPUT (concluded)

```

C** ***** ENTRY CHECK ROUTINE *****
C** PROMPTING USER INPUT OF Y OR N INDICATING HIS DESIRE TO CHECK THE
C** JUST COMPLETED INPUT BEFORE LOADING INTO THE DATA BASE OR NOT.
1310 WRITE (6,1310)
1310 FORMAT (1H,"WOULD YOU LIKE TO CHECK YOUR ENTRY BEFORE CONTINUING?
1ENTER Y OR N.",3X)
      GO TO 1319
C** ERROR HANDLING ROUTINE.
1312 WRITE (6,1313)
1313 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,
1PLEASE ENTER Y OR N.",3X)
1319 YORN = 0.
C** *** YORN = "Y" USER WISHES TO CHECK INPUT BEFORE CONTINUING***
C** *** NO CHECK IS REQUIRED.***
      READ (5,1320) YORN
1320 FORMAT (1A1)
C** ERROR HANDLING DISPLAY ABOVE IS PROMPTED HERE.
      IF (YORN.NE."Y".AND.YORN.NE."N") GO TO 1312
C** PRINTING TO THE SCREEN THE ENTIRE DATA AS INPUT BEFORE ATTACHING S2K
      IF (YORN.EQ."N") GO TO 1770
      WRITE (6,1330) DOCUMENT
1330 FORMAT (1H," 1. DOCUMENT NUMBER - ",I4)
      WRITE (6,1340)
      WRITE (6,1342) (TITLE(I), I=1,72)
1340 FORMAT (1H," 2. TITLE - ")
1342 FORMAT (1X,72A1)
      WRITE (6,1350) (AUTHOR(I), I=1,30)
1350 FORMAT (1H," 3. AUTHOR - ",30A1)
      WRITE (6,1360) (LOCALITY(I), I=1,30)
1360 FORMAT (1H," 4. LOCATION - ",30A1)
      WRITE (6,1370) YEAR
1370 FORMAT (1H," 5. YEAR PUBLISHED - ",I2)
      WRITE (6,1380) CLASS
1380 FORMAT (1H," 6. CLASSIFICATION - ",I41)
      WRITE (6,1390) OWNER
1390 FORMAT (1H," 7. OWNERSHIP DATE - ",I42)
      WRITE (6,1400) PATENT

```

Figure 29. Check/correct routine of DMLIBINPUT (continued next page)

```

1400  FORMAT (1H," R. DATE OF ENTRY - ",1A7)
      WRITE (6,1410) FAC
1410  FORMAT (1H," 9. FUNCTIONAL AREA CODE - ",12)
      WRITE (6,1420) INIT,AGENCY
1420  FORMAT (1H,"10. INITIALIZING AGENCY - ",2A10)
      DO 1440 I=1,KEY
      WRITE (6,1430) I,(KEYWORD(I,J), J=1,20)
1430  FORMAT (1H,"11. KEYWORD NUMBER ",12," IS - ",20A1)
1440  CONTINUE
      WRITE (6,1440)
      WRITE (6,1440) (ABST(1,J), J=1,8)
1445  FORMAT (1H,"12. ABSTRACT - ")
1446  FORMAT (1X,8A10)
      IF (ABST(2,1).EQ."00") GO TO 1461
      DO 1460 I=2,NCOUNT
      WRITE (6,1450) (ABST(I,J), J=1,8)
1450  FORMAT (1X,8A10)
1450  CONTINUE
C** ***** ENTRY CHANGE ROUTINE *****
C** PROMPTING USER INPUT OF Y OR N INDICATING HIS DESIRE TO MAKE OR NOT
C** MAKE ANY CHANGES TO THE INPUT BEFORE CONTINUING.
      1461 WRITE (6,1470)
1470  FORMAT (1H,"DO YOU WISH TO MAKE ANY CORRECTIONS TO THE ENTRY BEFORE
      IF CONTINUING?",1," ENTER Y OR N.",3X)
      GO TO 1473
C** ERROR HANDLING ROUTINE.
1472  WRITE (6,1472)
1473  FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,
      PLEASE ENTER Y OR N.",3X)
      1479 YCOR2 = 0.
C**      YCOR2 = "Y" USER WISHES TO MAKE CORRECTIONS TO INPUT,"N" NO
C**      CHANGES ARE REQUIRED.
      READ ("1490") YCOR2
1490  FORMAT (1A1)
C** ERROR HANDLING DISPLAY ABOVE IS PROMPTED HERE.
      IF (YCOR2.NE."Y".AND.YCOR2.NE."N") GO TO 1472
      IF (YCOR2.EQ."N") GO TO 1700

```

Figure 29. Check/correct routine of DMLIBINPUT (continued next page)

```

1431 WRITE (6,1493)
1432 FORMAT (1H,"ENTER THE NUMBER (1-12) WHICH PRECEDES THE ENTRY VALUE
1 YOU WISH TO",/, " CHANGE.",/,3X)
1433 GO TO 1494
1434 ERROR HANDLING ROUTINE.
1435 WRITE (6,1493)
1436 FORMAT (1H,"THE VALUE ENTERED IS NOT COMPATIBLE WITH THE REQUEST,
1 PLEASE ENTER A",/, " NUMBER FROM 1 TO 12.",/,3X)
1437 CHANGE = 0.
1438 *** CHANGE = THE MENU NUMBER OF THE ITEM TO BE CORRECTED.
1439 *** WRITING A MENU TO AID THE USER IN HIS CORRECTION SELECTION.
1440 WRITE (6,1495)
1441 FORMAT (1H," 1. DOCUMENT NO.",/," 2. TITLE",/," 3. AUTHOR",/,"
1 4. LOCATION",/," 5. VR. PUBLISHED",/," 6. CLASSIFICATION",/,"
1 7. DOWNGRADE DATE",/," 8. ENTRY DATE",/," 9. FUNCTIONAL AREA CO
1 DE",/," 10. INITIALIZING AGENCY",/," 11. KEYWORDS",/," 12. ABSTRACT
1",/,)
1442 READ (5,4) CHANGE
1443 ERROR HANDLING DISPLAY ABOVE IS PROMPTED HERE.
1444 IF (CHANGE.LT.1.OR.CHANGE.GT.12) GO TO 1492
1445 *** THE FOLLOWING RETURNS THE USER TO THE APPROPRIATE INPUT ROUTINE
1446 *** PROVIDING CORRECTION CAPABILITY.
1447 GO TO (109,209,309,409,509,609,709,809,909,1099,1109,1209) CHANGE

```

Figure 29. Check/correct routine of DMLIBINPUT (concluded)


```

      WRITE (7,1850) (KEYMCO(N,J), J=1,20)
1850 FORMAT (" 20*21*",20A1,"")
1860 CONTINUE
      N=1
C** THE ABSTRACT VALUE MAY EXCEED THE 250-CHARACTER LIMIT OF SYSTEM
C** 2000. FOR THAT REASON SPECIAL FORMATTING IS NECESSARY AS SHOWN BELOW
1869 N1=N+1
      N2=N+2
      N3=N+3
      WRITE (7,1870) (ABST(N,J), J=1,8)
1870 FORMAT (" 30*31*",/,8A10)
      IF (NCOUNT.LT.N1) GO TO 1890
      WRITE (7,1875) (ABST(N1,J), J=1,8)
1875 FORMAT (8A10)
      IF (NCOUNT.LT.N2) GO TO 1890
      WRITE (7,1876) (ABST(N2,J), J=1,8)
1876 FORMAT (8A10,/)
      IF (NCOUNT.LT.N3) GO TO 1890
      WRITE (7,1877)
1877 FORMAT (" ")
      N=N+3
      GO TO 1869
1880 IF (YOPEN3.CO."N") GO TO 1900
      WRITE (7,1881)
1881 FORMAT (" *END*")
C** *** LASTDOC = THE VALUE OF THE LAST DOCUMENT ENTERED SET
C**      POINT TO RE-EXECUTING THE PROGRAM.***
      LASTDOC = NCOUNT
      GO TO 80
1900 WRITE (7,1910)
1910 FORMAT (" *END*")
      GO TO 80
C** STARTING THE LAST DOCUMENT NUMBER ENTERED FOR DISPLAY TO THE USER
C** WHEN THE SYSTEM IS NEXT EMPLOYED.
      WRITE (8,*) NCOUNT
      STOP
      END

```

Figure 30. Output routine of DMLIBINPUT (concluded)

```

.PROC, INPUT.
NDF.
C** PURGING TAPE# WHICH CONTAINS THE DOCUMENT NUMBER OF THE LAST
C** DOCUMENT ENTERED INTO THE SYSTEM.
PURGE, TAPE#, TAPE#, ID=TESTPA, CY=1.
C** ATTACHING THE INPUT PROMPTING OBJECT PROGRAM.
ATTACH, A, DMLTRINUTRN, ID=TESTPA, CY=1.
A.
C** REWINDING TAPE# WHICH CONTAINS THE USED RESPONSES AND WHICH
C** WILL EVENTUALLY BE THE SYSTEM 2000 INPUT FILE.
REWIND TAPE#.
ATTACH, S2K, S2K260, ID=SYS2000.
C** ESTABLISHING THE SYSTEM 2000 COMMANDS TO BE EXECUTED APPEAR IN A
C** FILE NAMED "IN".
S2K, C=IN.
RETURN, S2K, IN, A, TAPE#, TAPE#.
C** STOPPING THE DOCUMENT NUMBER OF THE LAST DOCUMENT ENTERED.
CATALOG, TAPE#, ID=TESTPA, AC=FFFE.
RETURN, TAPE#.
NDF.
C** INDICATING THE SYSTEM 2000 COMMANDS ARE TO FOLLOW.
DATA, IN.
USER, XX%
ECHO OFF%
USER, KAFDING%
NOW IS DMLIB%
DATA FILE IS TAPE#%
LOAD%
EXIT%
END.
C** COL COMMAND EQUIVALENT TO REWINDING DMLIB.
REVERT.

```

Figure 31. Cyber control language program DMLIB

CHAPTER 5

KEYWORD LIST

5-1. PURPOSE. Searching for a document via related keywords represents the most common type of document search. Obviously, to be functional, the keyword list cannot remain static. Keyword values uniquely descriptive of a document must be added. It is essential to system improvement that input in this regard come from the user. DMB notification of such a keyword deficiency will result in a more beneficial system for all. Figure 32 contains the entire keyword list at the time of the DCS conversion. This list is provided as an aid to both user and custodian. The user can reference the list to determine which keywords would most closely relate to the document of interest as well as the exact syntax. The custodian can use the listing to maintain a functional, yet minimal, number of keywords while inputting new document information. The keywords are listed alphabetically and are preceded by the number of documents to which that keyword relates.

1	AMCP 706-162	2	AORS
1	AMCP 706-170	2	AOPS XVII
1	AMCP 706-177	1	AOS
1	AMCP 706-210	6	APC
1	AMCP 706-23A	7	APCS
1	AMCP 706-240	1	APERS
1	AMCP 706-250	1	AP 380-40
1	AMCP 706-260	1	ARAB-ISRAFLY WAR
1	AMCP 706-2A2	1	ARCOMS
1	AMCP 706-290	1	ARCSA III
1	AMCP 706-327	2	ARCTIC
1	AMCP 706-340	17	ARFA
1	AMCP 706-350	2	API
1	AMCP 706-411	2	APM
1	AMIM	3	APMAMENT
21	AMMUNITION	76	APMOP
6	AMCRFS	1	ARMY FORCES
9	AMCRYPTOUS	1	ARMY LOCATION CODES
2	AMSAA	1	ARMY RE
1	AMSWAG	1	APPA
1	AM1	1	APADCOM
19	ANALYSTS	1	APRAYS
1	ANNOUNCEMENT	2	APSV
4	ANTENNA	2	APTBRSS
6	ANTIATERDRAFT	1	APTEP
98	ANTIARMOR	134	ARTY
2	ANTIHELICOPTER	1	APV
6	ANTIPEPERSONNEL	2	ASA CAC
47	ANTITANK	1	ASARCII
2	ANTI-STANDOFF	1	ASASP
1	AN/ALC-136(X5-2)	15	ASH
1	AN/APR-32	1	ASHS
1	AN/MPG-4A	3	ASQJ
1	AN/PVS-5	1	ASF
1	AN/TAS-3	15	ASPD
1	AN/TAS-4	2	ASSAULT
3	AN/TAS-5	3	ASSESSMENT
1	AN/TLC-17A (V)	1	ASSP
1	AN/TDS-25	1	AS11
2	AN/TSC-72	1	AS-1G

Figure 32. Keyword list (continued next page)

1	ATACOMAP	3	BIFF
17	ATCM	1	BIG EAGLE
1	ATCM	1	RIIMVN
3	ATHELQ	1	RIMODAL
1	ATLANTIC COMMAND	1	BIOCHEMICAL
1	ATLAS	6	PIOLOGICAL
3	ATPT	1	BLACKHAWK
1	ATOMIC	7	BLAST
1	ATC	11	BLDM
12	ATTACK	1	BLU-730/R FAE
2	ATTENUATION	1	BMP
9	ATTRITION	1	BOAT
1	ATP	1	BOFORs
1	AUCIO-VISUAL	1	BOID
3	AUTOMATIC	1	BOLCEAGLE
1	AVAILABILITY	1	BOLCEAGLE 80
2	AVIATION	1	BOMBO
1	AX	2	BOMBS
6	AX	1	BONDER/TUA
1	A-10	1	BORDEPING
1	BAWT	2	BOUNDARY
5	BAULISTICS	1	BPM
1	BAND	1	BPFACH
1	BANDWIDTH	1	BPEAGRCARD
1	BARRIER	3	BPIGE
2	BASE	2	BRIEFING
1	BA'S	10	BROIGAGE
9	BATTALION	2	BOL
1	BATTFOY	1	BRLIMP 675
12	BATTLE	2	BROUNTING
1	BATTLE II	1	BTR-50
4	BATTLEFIELD	1	BUILDINGS
1	BOM	2	BULLETIN
1	BOMBSAN	2	BUNKER
1	BEAM CONTROL	1	BURST
4	BEAMINGDEPS	4	BURSTFICE
2	BEHAVIOR	7	BUSHMASTER
1	BELOWSS	5	CAB
2	BEST	1	CABLE
11	BIFLIOGRAPHY	10	CAMOUFLAG

Figure 32. Keyword list (continued next page)

1	CANCELLER	1	CLASSIFICATION
7	CANNON	1	CLAYMORE
2	CAPABILITIES	1	CLEARING
1	CARE	14	CLGP
1	CARL	2	CLIMATE
1	CARL GUSTAF	1	CLIMATOLOGY
10	CARMONETTE	1	CLCUN
1	CARRIAGES	2	CLUSTER
2	CARRIFR	2	CLUTTER
14	CAS	1	COATING
4	CASUALTY	1	COAX WG
4	CATALOG	5	COBRA
4	CATTS	1	CODES
1	CAVALRY	51	COFA
10	CAVALRY	1	COMAN
1	CRG	1	COMBAT
2	CRG	36	COMBAT
1	CRUSA/R	1	COMBATIVES
1	CRV	2	COMBINED ARMS
1	CCTS	1	COMBUSTION
2	CDEC	1	COMINT
1	CEILING	21	COMMAND
3	CEM	2	COMMAND POST
1	CEM/TFECS	2	COMMANDERS
1	CENSORSHIP	1	COMMANDER'S GUIDE
6	CEP	33	COMMUNICATIONS
1	CEV	6	COMPANY
1	CEWI	1	COMPATABILITY
1	CFA	1	COMPLEX
6	CFV	2	COMPRESSION
1	CGSC	1	COMPUTATION
1	CHAFF	20	COMPUTER
10	CHAPARRAL	2	COMSEC
7	CHARACTERISTICS	1	CONAF II
1	CHARGE-COUPLED	1	CONAR
1	CHARTS	1	CONCENTRATION
13	CHEMICAL	20	CONCEPTS
1	CHEMISEE EYE III	1	CONFERENCE
1	CIRCULAR	7	CONOPS
1	CIRCULATION	1	CONSTRAINTS
7	CIVIL	1	CONSTRUCTION

Figure 32. Keyword list (continued next page)

2	COMPTINGENCY	1	CA PAM 525-13
1	CONTINUOUS	5	DAMAGE
3	CONTRACT	1	CAPAT
31	CONTECL	1	CARCOM-P-706-101
7	CONVENTIONAL	1	CARCOM-P-706-102
16	COPPERHEAD	1	CARCOM-P-706-163
9	COEPS	1	CARCOM-P-706-417
2	COEPS 96	1	CAPING THPUST
1	COPELATION	236	DATA
12	COST	1	DAY
1	COSTING	3	DAYLIGHT
1	COUNTDOWN	2	DDM
1	COUNTER COMMAND	1	DEBIS
1	COUNTERATTACK	1	DECAN
1	COUNTERBARRIER	1	DECEASED
3	COUNTERFIRE	3	DECEPTION
1	COUNTERGUERRILLA OPERATIONS	2	DECOY
23	COUNTERMEASURES	7	DEFENSE
2	COUNTERMINE	2	DEGRADATION
1	COUNTERMORALITY	1	DELAY
3	COUNTERSURVILLANCE	7	DELIVERY
1	COUNTER-TARGET	2	DEMOLITION
1	COUPLING ANALYSTS	2	DEPLETED
2	COVER	2	DESCRIPTION
2	COVERAGE	1	LESERT
1	CP	3	DESIGN
2	CPATEO	1	DESIGNATION
1	CRAWLER	14	DESIGNATOR
2	CREW-SERVED	39	DETECTION
2	CRTTERIA	6	DETECTORS
2	CRUISE	1	DETERMINISTIC
2	CS	16	DEVELOPMENT
1	CSASP	3	DEVICES
1	CTEA	2	DE
1	CURRENT ACTIONS REPORT	1	DICF
1	CYCLE	2	DICTIONARY
3	CZ	1	DIFFERENTIAL
4	CZY	2	DIFFUSTON
1	CA	1	DIGEST
1	CA PAM 313-12	1	DIGITAL

Figure 32. Keyword list (continued next page)

1	CIGATI7FO IMAGERV	2	DU
1	DIPECT FIVE	1	DUEL
1	DIPECTION	1	DURATION
2	DIPECTION FINING	19	DUST
1	DIPECTCRATE	1	DYNCOM
1	PIRT	16	DYNTACS
3	DIRT J	2	DYNTACS-X
1	DIRT-II	1	EAC
1	DISASTER	9	ECCM
1	DISCOM	13	ECM
1	DISCRIMINATORS	1	EDL
1	DISKETTE	53	EFFECTIVENESS
2	DISPERSION	18	EFFECTS
1	DISPOSAL	5	ELECTROMAGNETIC
1	DISTANCE	19	ELECTRONIC
2	DISTURBANCE	10	ELECTRO-OPTIC
2	DITCHES	1	ELEMENT
5	DIVAD	1	ELINT
1	DIVAD COFA	1	EMARKATION
1	DIVADA	4	EMP
29	DIVISION 85	3	EMPLOYMENT
1	DIVLEV	1	EMR
5	DIVOPS	6	ENC
1	DIVSIFT	1	ENERGY
19	DIVWAG	5	ENGAGEMENT
1	DLSE	40	ENGINEER
1	DM-11	1	ENTAC
37	DOCTINE	13	ENVIRONMENT
1	DOCUMENT CONTROL SYSTEM	3	EQUATIONS
5	DOCUMENTATION	8	EQUIPMENT
1	DR 4120.15-L	4	ERCO
3	DRFO	1	ESCAPE
1	DRAG	2	ESM
36	DRAGON	4	ESTIMATE
1	DRAGOS	1	ETC3
9	DRF	17	EUROPE I
1	DTLL	9	EUROPE II
2	DRS	4	EUROPE III
2	DTF	6	EVACUATION

Figure 32. Keyword list (continued next page)

2	EVASION	1	FINANCE OFFICER
2	EVASION	1	FINTE ELEMENT
5	EVASION	1	PIPE
3	EVASION	19	FIREPOWER
1	EVOLUTION	7	FIRE/FOGGY
3	EW	3	FIPING
1	EW	2	FIRING CUE
1	EXCHANGE	1	FIRING TYPES
2	EXCHMER	1	FIRST AID
1	EXERCISE	1	FITTER C
2	EXPECTED	1	FIVE-YEAR
1	EXPERIMENT 11.8	2	FIXED WING
1	EXPERIMENT 42.11	7	FLAME
1	EXPERIMENT 43.6	3	FLAPES
1	EXPERIMENT 43.8	9	FLASH
3	EXPERIMENT 43.8	2	FLIGHT
1	EXPERIMENT 411.8	1	FLIGHT PATH
14	EXPERIMENTS	1	FLIR
1	EXPLOSION	6	FLOGGER
7	EXPLOSIVES	1	FLOGGER C
6	EXPOSURE	1	FM
1	EXTINCTION	2	FM 100-10
1	E-FOSS	1	FM 100-10-1
1	EAMP	1	FM 100-26
1	EAC	1	FM 100-5
2	EACTOPS	1	FM 100-50
2	EAF	1	FM 101-10-1
1	EALL	1	FM 101-10-2
1	EAF FAST	1	FM 101-5
1	EASCAN	1	FM 101-50-20
14	EASTALS	1	FM 101-50-26/2
1	EATIGUE	1	FM 101-50-26/4
1	ECIS	1	FM 101-50-27-1
1	ECRA	2	FM 101-50-27-2
3	ECRS	2	FM 101-52-6
1	ECRA	1	FM 101-5-1
1	ECR-70	1	FM 101-60-12
26	EFIELD	1	FM 101-60-14
1	EFIELD OF VIEW	1	FM 101-60-16
1	EIGHTER	2	
2	EIGHTER		
3	ELITE		

Figure 32. Keyword list (continued next page)

1	FM 101-60-1A	1	FM 1-50
1	FM 101-60-4	1	FM 1-60
1	FM 101-60-5	1	FM 1-80
2	FM 101-60-7	1	FM 20-12
1	FM 101-61-2	1	FM 20-150
1	FM 101-62-1	1	FM 20-32
1	FM 101-62-2	1	FM 20-37
1	FM 101-62-3	1	FM 20-60
1	FM 101-63-1	1	FM 21-11
2	FM 105-5	1	FM 21-150
1	FM 10-407	1	FM 21-27
1	FM 10-437	1	FM 21-31
1	FM 10-63	1	FM 21-41
1	FM 10-A	1	FM 21-48
1	FM 11-12F	1	FM 21-50
1	FM 11-23	1	FM 21-6
1	FM 11-40	1	FM 21-60
1	FM 11-486-13	1	FM 21-75
1	FM 11-496-20	1	FM 21-76
1	FM 11-490-6	1	FM 22-171
1	FM 11-02	1	FM 23-11
1	FM 12-2	1	FM 23-17A
1	FM 12-50	1	FM 23-23
1	FM 14-4	1	FM 23-3
1	FM 17-1	1	FM 23-30
1	FM 17-12-2	1	FM 23-31
1	FM 17-12-4	1	FM 23-32
1	FM 17-12-6	1	FM 23-33
1	FM 17-30	1	FM 23-55
1	FM 17-95	1	FM 23-65
1	FM 19-1	1	FM 23-67
1	FM 19-15	1	FM 23-82
1	FM 19-30	1	FM 23-85
1	FM 19-40	1	FM 23-9
1	FM 19-50	1	FM 24-1
1	FM 19-60	1	FM 24-1A
1	FM 1-1	1	FM 24-20
1	FM 1-105	1	FM 25-2
1	FM 1-200	1	FM 27-1
1	FM 1-5	1	FM 27-10

Figure 32. Keyword list (continued next page)

1	FM 29-10
1	FM 29-20
1	FM 29-3
1	FM 29-30-1
1	FM 29-45
1	FM 29-5
1	FM 29-50
1	FM 30-10
1	FM 30-102
1	FM 30-15
1	FM 30-17
1	FM 30-29
1	FM 30-31
1	FM 31-11
1	FM 31-12
1	FM 31-16
1	FM 31-18
1	FM 31-3
1	FM 31-35
1	FM 31-40
1	FM 31-50
1	FM 31-71
1	FM 31-72
2	FM 32-20
1	FM 32-30
1	FM 32-34
1	FM 3-1
1	FM 3-10
1	FM 3-12
1	FM 3-15
1	FM 3-9
1	FM 3-97
1	FM 3-9
1	FM 41-10
1	FM 42-5-11
1	FM 44-1
1	FM 44-1A
1	FM 44-1B
1	FM 44-102
1	FM 44-1-1

1	FM 44-1-2
1	FM 44-2
1	FM 44-20
1	FM 44-3
1	FM 44-4
1	FM 44-5
1	FM 44-61
1	FM 44-62
1	FM 44-07
1	FM 54-2
1	FM 55-10
1	FM 55-19
1	FM 55-250
1	FM 55-30
1	FM 55-40
1	FM 55-52
1	FM 57-1
1	FM 57-3A
1	FM 5-1
1	FM 5-15
1	FM 5-20
1	FM 5-25
1	FM 5-26
1	FM 5-30
1	FM 5-35
1	FM 61-100
2	FM 6-1
1	FM 6-121
1	FM 6-143
1	FM 6-141-2
1	FM 6-15
1	FM 6-16
1	FM 6-161
1	FM 6-162
1	FM 6-2
1	FM 6-20
1	FM 6-25-1
1	FM 6-40
1	FM 6-40-5
1	FM 6-42

Figure 32. Keyword list (continued next page)

1	FM 6-50
1	FM 6-89
1	FM 6-94
1	FM 71-1
1	FM 71-100
1	FM 71-101
1	FM 71-2
1	FM 7-10
1	FM 7-20
1	FM 7-30
1	FM 7-7
1	FM 8-10
1	FM 8-15
1	FM 8-35
1	FM 8-55
1	FM 90-10
1	FM 90-2
1	FM 90-6
1	FM 9-15
1	FM 9-16
1	FM 9-19
1	FM 9-59
4	FOG
1	FOLIAGE
1	FOLLOW-THROUGH
16	FORCE
1	FORECAST
5	FOREIGN
1	FOREMON
3	FOET
5	FORTIFICATION
1	FOURCE
3	FRACTIONAL
7	FRAGMENT
1	FRIEND/FCE
1	FR7-70
1	FSMAA
1	FSS
1	FSSP
4	FUEL

1	FUSTON
1	FU7F
3	FU7FS
1	FV 80-89
2	F4
2	GAME
1	GAMMA
1	GAS
5	GATOR
1	GAUSS-KRASOVSKIJ
3	GAU8
1	GAU-8 CANNON
1	GAVIN
1	GCM
3	GEMSS
2	GENERAL
7	GEOGRAPHY
1	GEOREF
1	GERMAN
5	GERMANY
1	GE-SI
1	GLD
10	GLD
5	GLOSSARY
4	GRAF II
1	GRAPH ANGLE
3	GRAPHICS
10	GRANAF
1	GRACEY STAND
14	GROUND
1	GROUND-RASEN
1	GROUND/AIP
1	GROUND/GROUND
7	GSDS
1	GUARDRAIL
4	GUIDANCE
15	GUN
1	GUNFIRE
1	GUNNER ERROR
8	GUNNERY

Figure 32. Keyword list (continued next page)

1	G-K	2	HONEST IT
1	G/VLLD	1	HONEST JOHN
1	HALINES	1	HOPSEPOWER
42	HANDROCK	1	HOT
2	HANDOFF	25	HOWITZER
1	HARD-TO-HAND	5	HUMAN
1	HARD TARGETS	1	HYDRAULIC
1	HARDENING	1	H-SERIES
1	HARDNESS	1	H-16
1	HARPOON	1	IAD
1	HASTY	2	IADS
1	HAVE	3	ICC
1	HAW	1	ICC
9	HAWK	2	ICM
1	HAWARD	1	ICV
1	HB	1	IDAEX
4	HC	6	IDENTIFICATION
3	HE	9	IEM/SEM
4	HEAT	6	IFF
1	HEAVY LIFT	9	IFV
1	HEL	6	ILLUMINATION
1	HELARM	2	ILLUSTRATIONS
173	HELICOPTER	5	IMAGE
40	HELLFIRE	1	IMAGERY
3	HELMATES	4	IMAGING
2	HELOPAD	1	IMPACT
1	HEMISPHERE	4	INCA
1	HEC	1	INCAPACITATION
2	HECULES	1	INCENDIARY
1	HEYFORD	1	INCENTIVE CONTRACTIN
3	HF	11	INDEX
1	HF/DF	2	INDIRECT
7	HIGH ENERGY	1	INDIVIDUAL
4	HIMAD	1	INDUCE
1	HIVAG IT	28	INFANTRY
1	HISTORY	3	INFORMATION
1	HLC-ME	1	INPUT ERRORS
3	HLW	1	INSTRUMENT FLYING
2	HMMMS	2	INSTRUMENTATION
6	HOMING	1	INTACS

Figure 32. Keyword list (continued next page)

29	INTELLIGENCE	1	JTCG/ME-74-12
1	INTENSIFIER	1	JTCG/ME-74-9
1	INTENSITY	1	JTCG/ME-77-15
1	INTERACTION	1	JTX
7	INTERDICTION	1	JUMPMASER
1	INTEREST	1	JUNGLE OPERATIONS
1	INTERFERENCE	10	J-CATCH
4	INTEROPERABILITY	2	KALMAN
11	INTERVISIBILITY	3	KE
1	INVESTIGATION	1	KILL
1	IP	2	KINEMATICS
1	IPOK	2	KINGS RIDE T
43	IR	1	KINGS RIDE ITA
6	IRIA	1	KNOLLENBERG
1	IRIAO	2	KOPEA
5	IRIS	2	LAGUMS
1	IPUS	4	LANCE
2	IOUS 7A-75	11	LANCHESTER
5	IPUS-75	7	LAND
3	ISRAEL	1	LANDING FORCE
2	ISRAELI	1	LANGUAGE
1	ISTAB	105	LASEP
1	ITCP	1	LAUNCH ACOUNCAPY
3	ITV	9	LAUNCHER
1	IYA	1	LAUNDEY
2	JAMFEC	5	LAW
11	JAMMING	1	LOWESS
1	JAN	1	LEAD ESTIMATE
3	JANES	1	LEADERSHIP COUNSFILN
1	JANUS	1	LEAST SQUARES
1	JO	1	LEGAL GUIDE
1	JET	1	LEGAL MIX V
9	JEFFY	1	LET
14	JMEM	15	LETHAL
1	JOINT FORCE	1	LETHALITY
1	JOY	1	LEVEL
1	JTCG/AS-74-5-001	1	LGC
3	JTCG/MC	1	LIAISON
1	JTCG/ME 7A-9-2	2	LTPRAPY
1	JTCG/ME-72-15	4	LINAP

Figure 32. Keyword list (continued next page)

1	LIFE
9	LIGHT
1	LIGHTWEIGHT
2	LIMITED
1	LIARS
2	LIST
1	LOA
1	LOAD
4	LOCATION
1	LOCATOR
1	LOCK-ON
1	LOCOMOTION
2	LOGIC
29	LOGISTICS
2	LOW
1	LOHIAFS
1	LONG HAUL
1	LOOK
1	LOOK ANGLE
10	LOS
2	LOSSES
1	LOST HORIZON
1	LOW
1	LTP
3	LULEJIAN
4	LULEJIAN-I
3	LWMS
4	MACHINE GUN
1	MAGRIT
1	MAGNIFICATION
5	MAINTENANCE
5	MANAGEMENT
6	MANEUVER
2	MANETST
4	MAPPAC
3	MANPOWER
6	MANUAL
1	MAP OVERLAYS
4	MAFS
1	MAGINES

3	MAPKOV
1	MAPSMANSHIP
1	MAPK24
1	MARSAYIT
1	MASKING
1	MASONRY WALLS
1	MAST
1	MASTER
1	MAST-MOUNTED
6	MATERIAL
3	MATERIEL
4	MATHEMATICS
2	MAVERICK
4	MEASUREMENT
1	MEASURES
7	MECH
5	MEDICAL
1	MESSAGE
9	METEOROLOGY
2	METHOD
8	METHODOLOGY
1	METRO
1	MGE-18
1	MICOM
4	MICROFICHE
1	MICROPHYSICS
13	MICV
7	MIDDLE EAST
1	MIDDLE EAST I
2	MIDDLE EAST II
1	MTJI
2	MILAN
6	MILITARY
1	MILLIMETER
4	MINE
7	MINFIELD
2	MINER
3	MINES
1	MINORITY
1	MINSTRI

Figure 32. Keyword list (continued next page)

1	MINSIMII	7	M16A1
1	MIP	1	M173
1	MISE	1	M18
17	MISSILE	1	M18A1
4	MISSION	1	M19
1	MLM	1	M1919A6
1	MMCS	2	M19R
1	MMC	1	M2
6	MOFA	1	M202A1
15	MOFILITY	1	M203
162	MOFEL	1	M224F1
2	MOFERN	1	M239
6	MOF	3	M30
1	MOFA	1	M37
2	MOHAWK	1	M40A2
4	MONTH CAPLO	1	M400
1	MONTHLY	1	M42
31	MOETAP	1	M42A1
1	MOS	1	M47
1	MOTOP	1	M49A5
3	MOTOPIZED	1	M55
1	MOUNTATN	2	M5F1
1	MOUNTER	1	M579
1	MOUNTS	21	M60
8	MOVEMENT	6	M60A1
6	MP	1	M60A1F2
1	MPI	3	M60A1F3
1	MPC	3	M60A2
2	MSG	2	M60A3
2	MSCBP	1	M60F2
1	MTRE	1	M61
1	MULE	1	M67
1	MULTIPLE	1	M72A1
1	MX	1	M72A2
1	M102	1	M729
1	M17	2	M79
1	M109	1	M901
2	M19A1	1	NATIONAL
1	M110	12	NATO
2	M113	1	NATURAL

Figure 32. Keyword list (continued next page)

2	NAVAL	25	ORGANIZATION
3	NAVIGATION	1	ORGANIZATIONAL
6	NBC	4	OT
1	NELSON	2	OT II
1	NETS	1	OT 671
2	NEUTRALIZATION	1	OTAS
55	NIGHT	1	OVERFLAYS
2	NIKE	1	OV10
3	NOF	1	PACER
1	NOISE	1	PACT
1	NONCOHERENT	1	PAM
1	NON-DIVISIONAL	1	PAPERS
1	NON-NUCLEAR	1	PAPACHUTE
2	NORTHERN	1	PARAMETRIC
1	NTC	4	PASSIVE
60	NUCLEAR	4	PASSWORD
1	NUMBER	1	PATHEINDEX
1	NWIP 11-20-D	1	PATHS
1	N-1451-APPA	1	PATRIOT
1	OBJECTIVES	1	PATROLLING
22	OBSCURANTS	2	PATTERN
3	OBSERVATION	1	PGSNTF
5	OBSEVER	3	PF
2	OBSTACLES	2	PENETRATION
1	OCTOBER WAR	1	PERCENTAGE OF KNOWLE
1	OFFLIXON	1	PERFORATION
1	OFFENSE	10	PERFORMANCE
1	OFFICER	1	PERIODIC INDEX
2	OH58	1	PERIODS
1	OH6	3	PEECHING
9	OPERATIONAL	1	PEOSIAN GULF
62	OPERATIONS	5	PERSONNEL
1	OPEROSTING	4	PGM
6	OPTICAL	28	PH
9	OPTICS	1	PHASE II
1	OPTIMAL SMOOTHING	2	PHYSICAL
1	OP	1	PHYSICS
1	OPC	2	PICTURES
2	OPCEP	24	PK
3	ORCHANCE	3	PLAN

Figure 32. Keyword list (continued next page)

15	PLANNING	1	PYROTECHNICAL SIGNALS
5	PLATOON	1	PGC1
1	PLOTS	1	PGF
1	PLUTON	1	QUAD 23-MM
1	POINT	1	QUARTERMASTER
2	POINT TARGET	3	QUICK
1	POLAND	3	QWC
1	POLICE	1	PAAMS
2	POLICY	1	RACO
1	POM	24	RADAR
1	POMUS	8	RADIATION
1	PONTON	14	RADIO
1	POST	2	RADIOELECTRONIC
1	POSTPROCESSOR	4	RADIOLOGICAL
2	POSTUDE	1	RADIO-NUCLEAR
1	POST-1045	1	RADIUS
1	POT	1	RACON
1	POW	1	RAFT
1	POWER	24	RAM
2	PRECISION	1	RAMJET
1	PREPARATION	1	RAND
1	PRESSURE-IMPULSE	1	RANDOM NUMBER
2	PRISONERS	6	RANGE
4	PROBABILITY	2	RANGEFINDER
6	PROCEDES	3	RANGER
4	PROCEEDINGS	1	RANGING
1	PROCESS	1	RAPID
1	PROCESSING	1	RAPID-FIRE
1	PROCUFEMENT	1	RAPID
1	PRODUCTIVITY	1	RATE OF FIRE
4	PROGRAM	2	RATIO
1	PROJECTED CHARGE	1	RNA
4	PROJECTILES	1	PDF
1	PROTECTION	1	PDM
2	PSYCHOLOGY	4	PDE
2	PSYCHOMETRICS	2	REACTION TIME
1	PSYOP	2	READINESS
1	PT	2	READ AREA
5	DUPLICATIONS	4	RECOGNITION
2	PULSE	4	RECOITLESS

Figure 32. Keyword list (continued next page)

16	RECONNAISSANCE	2	ROUTE
1	RECOVERY	2	RPG7
1	REF PHOSPHORUS	5	RPV
12	REFREVE	1	RST
1	REFSTONE	1	SAFE DISTANCE
1	REDUNDANCY	2	SAFETY
4	REFERENCE	5	SAGGER
1	REFLECTIVITY	2	SAM
1	REFLECTORS	3	SAM-0
1	REGIMENT	1	SATCOM
6	RELIABILITY	1	SATELLITE
1	RELMAP	1	SATURATION
2	REMBASS	1	SAS
2	REMOVELY CONTROLLED	5	SA7
1	RENOVATION	4	SAB
1	REPAIR	3	SAP
1	REPLENISHMENT	1	SB 700-20
2	REPOPT	3	SCAT IT
4	REPOITEMENTS	2	SCATTERABLE
1	RESCUE	47	SCATTERING
9	RESEARCH	1	SCENARIO
1	RESEARCH ANALYSIS CORP	1	SCENE ANALYSES
1	RESPONSE	3	SCHEMULE
2	RESTRUCTURE	19	SCORES
2	RESTRUCTURING	19	SCOUT
2	RETRIEVAL	1	SCOFFENING
1	RE-ACQUISITION	1	SOOL
1	RE-IDENTIFICATION	4	SEAPCH
1	RE	1	SEARGENT
17	RIFLE	1	SECRET
1	RIGTS	5	SECURITY
1	RIPPLE-PIPE	6	SEEKFO
1	RICK	1	SEKVAL
1	RIVER	1	SEISMIC
1	ROAD WHEELS	1	SEMICONDUCTOR
1	ROSE	2	SENSITIVITY
14	ROCKET	02	SENSOP
14	ROLAND	2	SEFA
1	ROCEVAL	1	SEPARABILITY
1	ROUN	3	SERVICE

Figure 32. Keyword list (continued next page)

1	SEWS	26	SOVIET
1	SHADOWING	1	SP GUN
1	SHADOW-GRAM	1	SP HOWITZER
1	SHAPE-CHANGE	1	SPAL
1	SHELTER	1	SPALL
3	SHILLELAGH	1	SPECIAL
1	SHOCK EFFECTS	1	SPECTRUM
2	SHOCKWAVE	1	SPEFAN
9	SHORAD	1	SP-AAA GUN
1	SHORT	6	SQUAD
1	SIAP	1	SQUADRON
1	STICK	1	SSF
2	STICLORE	1	SSG
15	SIGHT	2	SSKP
6	SIGINT	1	SSN
4	SIGNAL	1	SS11
6	SIGNATURES	1	SS12
1	SILICON	3	STABILITY
1	SIMFING	1	STAFF
2	SIMFIRE	1	STALK
1	SIMSCRIPT	1	STALL
45	SIMULATION	1	STAND
2	SITE	1	STANDARD
3	SLAR	1	STANDARDIZATION
1	SLARM	3	STAND
2	SLIDES	4	STAR
2	SLUMING	1	STAPMAN
8	SMALL ARMS	11	STATISTICS
2	SMAN	2	STATUS
67	SNOKE	8	STINGER
1	SNOKE POT	1	STINGER-POST
1	SNOOTHING	4	STOCHASTIC
1	SNAPDES	1	STOCKAGE
2	SNOW	1	STORAGE
1	SOFTWARE	5	STRATEGY
1	SOLID STATE	4	STRUCTURE
1	SOE	22	STUDY
1	SOFTIE	1	SURMILLIMETER
5	SOTAS	1	SUMMARY
1	SOUND	1	SUMMARY

Figure 32. Keyword list (continued next page)

2	SUPMER DEW	1	TARGET ARRAYS-FMSAA
2	SUPEY	1	TARGET RATEC
4	SUPPLY	1	TARGET SELECTION
22	SUPPORT	2	TARGET SERVICING
13	SUPPRESSION	1	TAS II
1	SURFACE/SURFACE	1	TASVAL
4	SUPGE	1	TATAWS
17	SURVEILLANCE	1	TATAWS III
7	SURVEY	1	TATWF
25	SUEVIVABILITY	1	TA 390-41
2	SURVIVAL	2	TC
2	SUSTAINABILITY	1	TC 100-15
1	SWAMP	1	TC 17-15-1
1	SWATTER	1	TC 17-16
7	SWINGFIRE	1	TC 17-36-2
1	SWITCHBOARD	1	TC 23-2
1	SWLC	1	TC 30-12-2
1	SYMBOLS	1	TC 30-1A
6	SYNOPSISUM	1	TC 30-19
27	SYSTEM ANALYSIS	1	TC 30-22 RDF
1	S/W	1	TC 30-30
1	TABLES	1	TC 30-49
5	TABULATION	1	TC 30-8
1	TAC	1	TC 34-50
7	TACAIF	1	TC 3-1
4	TACFIRE	1	TC 3-50-2
2	TACS	1	TC 44-1-2
23	TACTICAL	1	TCAC
52	TACTICS	2	TCATA
2	TACWAF	2	TCOP
1	TACAFS	2	TECHNICAL
1	TADUS	6	TECHNIQUES
1	TAMOF	4	TECHNOLOGY
7	TALOP	7	TELECOMMUNICATIONS
2	TALON	1	TELEVISION
1	TAMMS	5	TEMAS
67	TANK	2	TEMPEST
1	TAS	11	TERMINAL
57	TARGET	4	TERMINOLOGY
		25	TEGRAIN

Figure 32. Keyword list (continued next page)

29	TEST	1	TP 8-76
24	TETAM	1	TP 9-77
22	THEATER	1	TP 10-72
1	THEORY	1	TP 1-71
19	THERMAL	1	TP 1-75
1	THIRD WORLD	1	TP 2-74
59	THREAT	1	TP 2-77
1	TIF	2	TP 3-78
1	TIFE	1	TP 4-75
2	TISE	1	TP 4-76
1	TISEN	1	TP 5-76
1	TLOT	2	TP 6-75
1	TM	1	TP 6-76
1	TM 132	2	TP 6-77
2	TM 1-73	1	TP 77
1	TM 23	2	TPACE
1	TM 27	4	TRACK
1	TM 2-76	1	TRACKED
1	TM 3-79	3	TRACKER
1	TM 4	7	TRACKING
1	TM 55-1425-48F-15-1	5	TRACTOR
1	TM 5-76	1	TRADOC
1	TM 9-1015-234-10	1	TRADOC BULLETIN
1	TM 9-1025-211-10	1	TRADOC BULLETIN #13
1	TM 9-2350-257-10	1	TRADOC JAM 310-4
19	TOF	1	TRADOC JAM 71-11
1	TOF	1	TRADOC JAM 71-5
1	TOIL	1	TRADOC REG 71-9
4	TOPOGRAPHY	7	TRAFFIC
8	TOS	2	TRAILER
2	TOTAL FORCE	75	TRAINING
67	TOW	2	TRAJECTORY
1	TOWEN	3	TRANSMITTANCE
1	TOYOLOGICAL	1	TRANSPACANCES
1	TP 8-75	6	TRANSPORT
1	TP 11-77	2	TRANSPORTABILITY
1	TP 2-79	7	TRANSPORTATION
2	TP 5-76	1	TRASANA
1	TP 5-79	2	TOENNS
1	TP 6-75	7	TRIANGULATION

Figure 32. Keyword list (continued next page)

1	TRICAP I	1	VHF
1	TRCOP	1	VITICONS
5	TRUCKS	1	VIETNAM
1	TR-RF-72-14	1	VIEWS
1	TURE	1	VII COPPS
1	TUNGSTEN	1	VIDEO
1	TV	15	VISIBILITY
1	TWISTER	14	VISION
1	T54	1	VISTAPAG
3	T5F	15	VISUAL
7	T62	1	VLLC
3	T64	1	VOLLEY
5	T72	8	VULCAN
4	T80	37	VULNERABILITY
1	T-SEPIFS	3	VULNERABLE AREA
1	T-05-79	1	WAAM
1	UHF	1	WAGCOM
1	UH1/AH1	1	WANG2200
1	UHFO	3	WAP
1	ULC	2	WAR RESERVE
4	UNIT	25	WARFARE
1	UPDATE	56	WARGAME
2	URANTUM	4	WARHEAD
9	URBAN	2	WARING
1	USACREC	8	WARSAW PACT
6	USAREUP	1	WARSL
1	USED TESTING	1	WATER VAPOD
4	USEPNAME	1	WAVEFORMS
2	USSR	37	WEAPON
1	US/GF	6	WEATHEP
1	UTIC	4	WET/WUV
1	UTILITY	1	WHEELER
1	UTM	1	WINCOM
1	VARS	1	WIRE
2	VALUE	1	WOUNDED
2	VASE	13	WP
1	VERTOP-0	3	WSEF
1	VERTOP-2	2	XM 774
25	VEHICLE	9	XM1
1	VEHICLE NYEOTLEN	1	XM129

Figure 32. Keyword list (continued next page)

7	60MM
1	66MM
2	762MM
4	81MM
1	84MM
2	8..
1	99MM

4	YM14A
1	XM159
1	XM224
1	XM26
3	XM42A
1	XM42S
1	XM42F
1	YM70

Figure 32. Keyword list (concluded)

E
ED
80